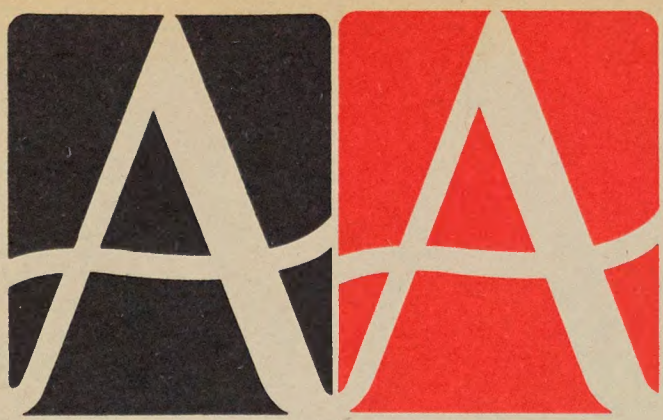


Editorial Dept

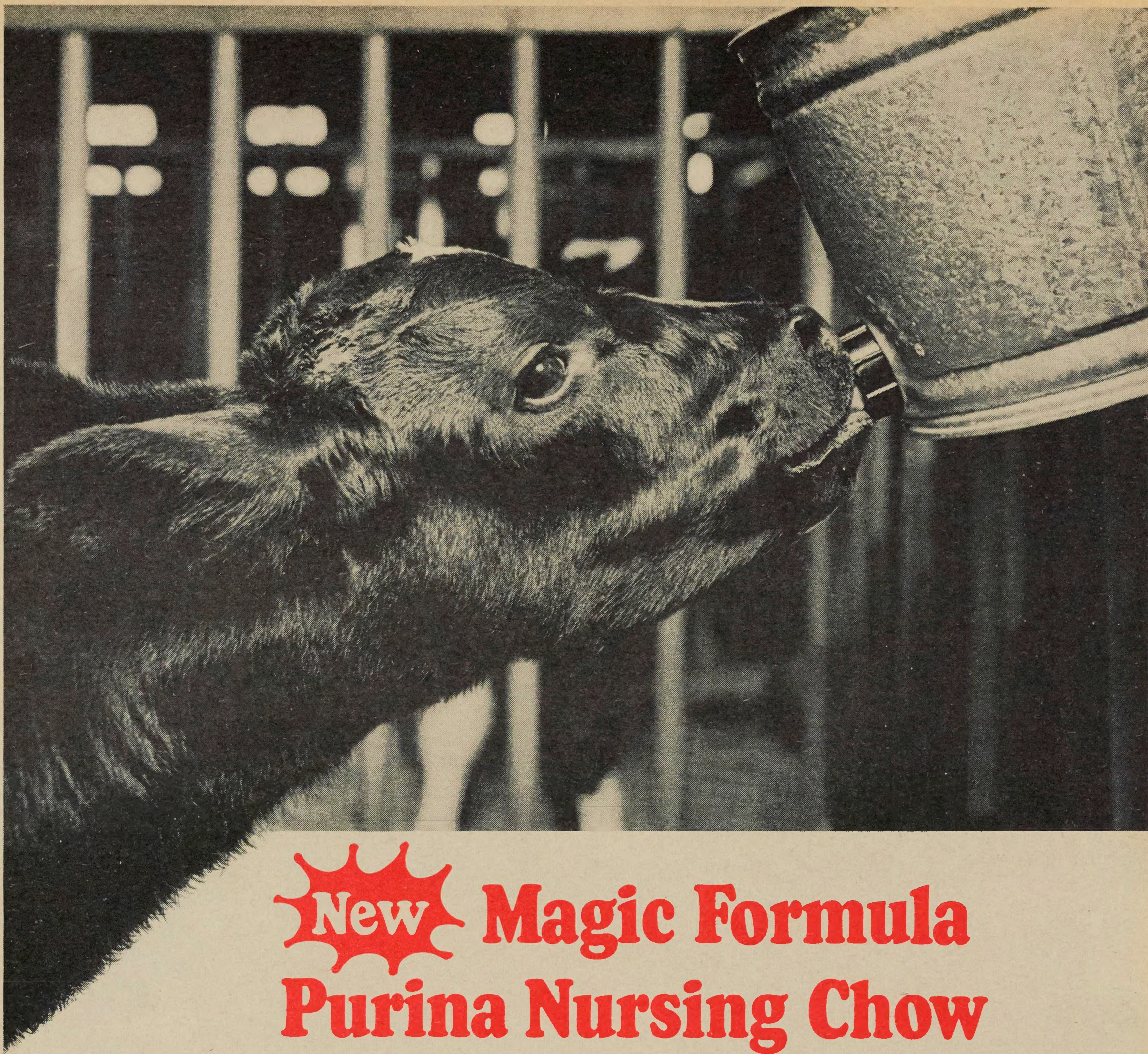


American **A** *griculturist*
and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

JANUARY 1965





New Magic Formula Purina Nursing Chow

Higher in energy...more digestible...starts calves faster!

Now . . . extra energy in new Nursing Chow helps your calves get off to a faster, more vigorous start. Baby calves grow and thrive on new, Magic Formula Purina Nursing Chow because it contains extra energy plus all the vitamins, minerals, fats, proteins, and carbohydrates they need to grow up in a hurry.

Frisky, bright-eyed youngsters fed Magic Formula Nursing Chow at the Purina Dairy Research Center average 6 lbs. more at 30 days than those fed other ways.

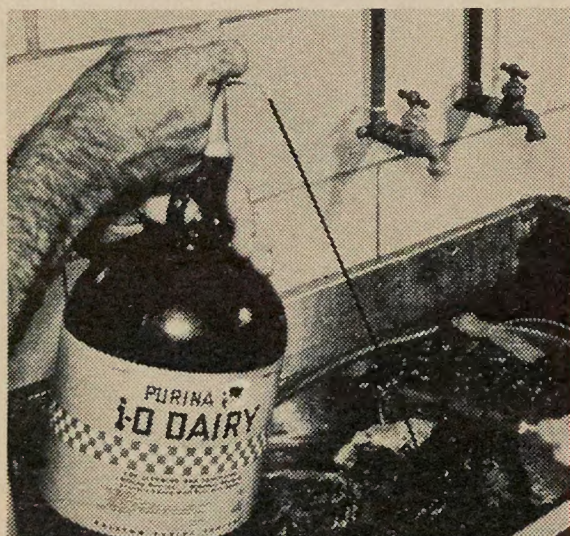
These calves show extra bloom and vigor because

they have fewer digestive upsets and can make better use of available proteins in this new milk replacer. What's more, a powerful antibiotic in Nursing Chow fights scours and guards against setbacks after calves are taken from their mothers.

New Purina Nursing Chow mixes in seconds, won't settle out, flows through nipple pails and automatic calf feeders without clogging. One bag is all you need to replace more than 225 lbs. of milk . . . and help give your calves a fast start.

Ask your Purina dealer for enough to raise your next bunch of calves the Nursing Chow way!

RALSTON PURINA COMPANY • ST. LOUIS, MISSOURI



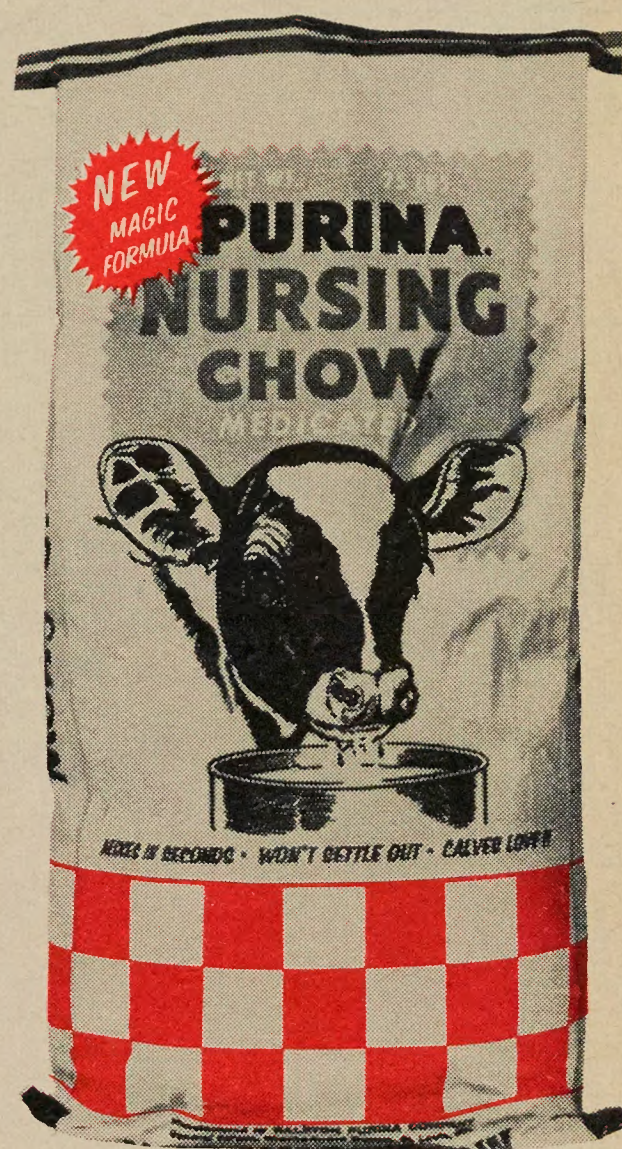
THINGS BEGIN TO HAPPEN . . . when you use PURINA iO-DAIRY to wash your milking equipment

This powerful germ-killer starts cleaning and sanitizing the minute you pour it from the bottle.

Purina iO-Dairy not only cleans thoroughly and kills germs quickly, it also loosens and washes away milkstone. Milking equipment is spotless and sanitized, because iO-Dairy contains new iodine—effective against practically all types of disease producing germs, and it is non-irritating and non-corrosive.

Purina iO-Dairy is active in lukewarm or cold water—no more hot water bills—and remains effective in water up to 10,000 ppm hardness.

See your Purina dealer today—he has Purina iO-Dairy in quarts and gallons.





American Agriculturist

and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 162 No. 1

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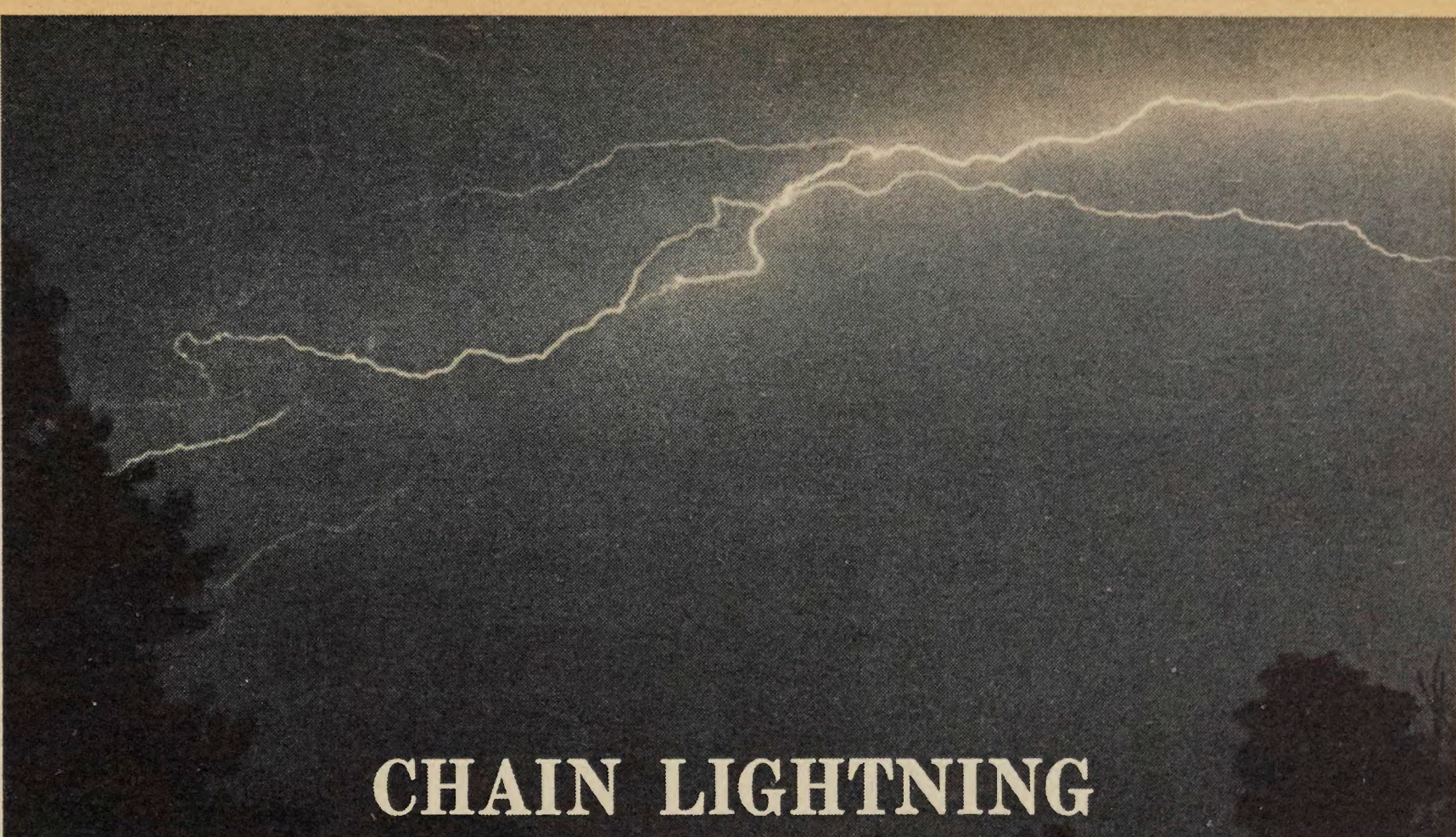
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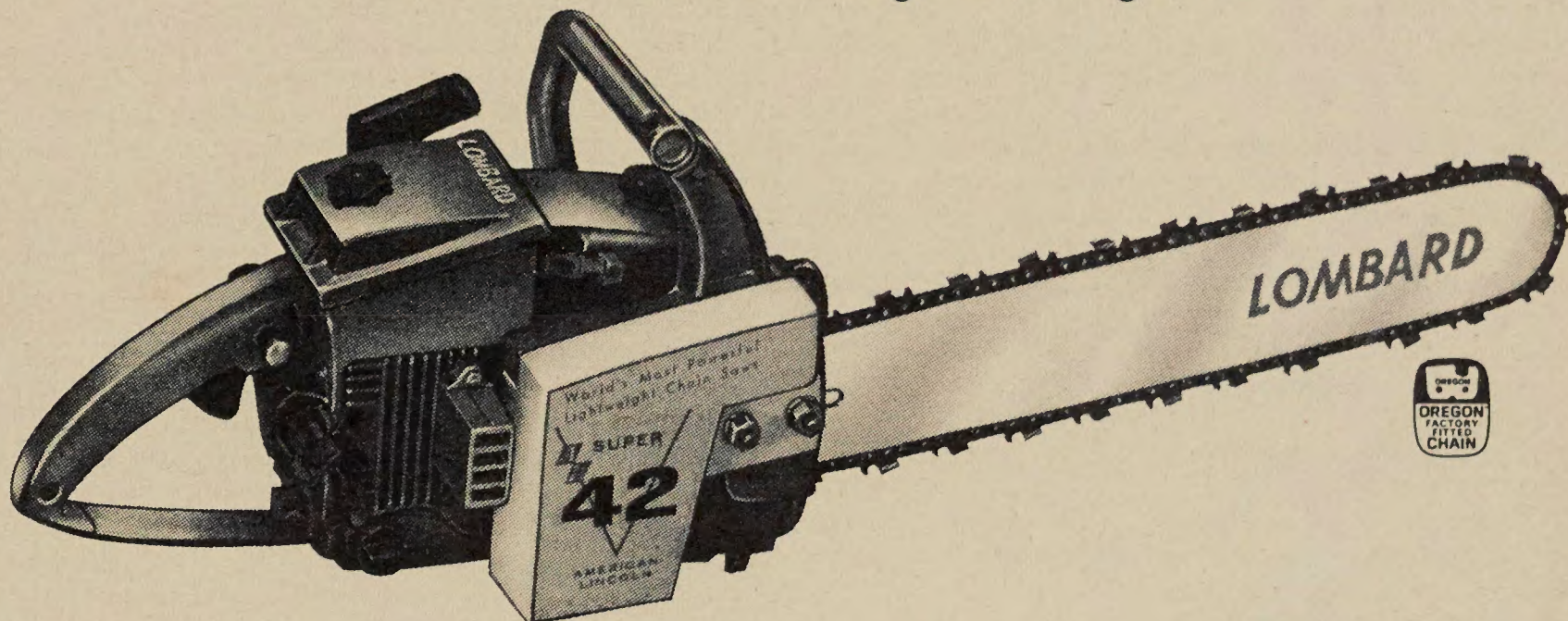
OUR COVER

Only children can be totally enthusiastic about that white stuff that covers the Northeast this time of year. With automation, though, even Dad can enjoy snow... and still keep the wheels moving!

American Agriculturist, January, 1965



the Lombard Lightweights



MOST POWERFUL LIGHTWEIGHT CHAIN SAWS IN THE WORLD

Under 13 pounds of flashing power—These new Lombard Lightweights are taking the country by storm. Two models—Super AL 42 and the AL 42—deliver more power per pound than any other chain saw on the market.

Cut up to 33% faster than other lightweight saws. The "heart" of the Lombard Lightweights is the new two-stroke, pyramid reed engine, designed specifically for these saws by American-Lincoln engineers. Easier to service, less critical to adjust, the full needle and roller bearing construction means a

longer life of trouble-free performance. 17,000 volt ignition for easier starts in any weather. Spark-arresting muffler for safety in dry timber areas, quieter operation. Extra large fuel tank for longer operation between fills. 3/8" pitch chain cuts fast — stays sharp.

For more power without the pounds get behind a new Lombard Lightweight. *Test it!* See for yourself what a really *powerful* lightweight chain saw can do. See your nearest dealer, or write Power Equipment Division, American-Lincoln Corp., Dept. 95501, Toledo, Ohio 43603.

WHERE TO SEE AND TRY THE LOMBARD LIGHTWEIGHT CHAIN SAW

NEW YORK

ACCORD, Accord Farmer's Co-op, Inc.
ADAMS, Ray Berry, RD 2
ALBANY, Beatty Supply
ALTAMONT, Lewis Armstrong, RD 1
BERNE, Steven Komjathy
BROOKLYN, Karl Martinson
CALLICOON, Everett Hawley
CANANDAIGUA, Thomas Sheavly
CHAUMONT, Crescent Milling
ELMIRA, Peters Marine
ENDICOTT, Snyder's Fix-It Shop
FARMINGDALE, Henry Mills
FARMINGDALE, Mills Mower & Saw Service
FULTONVILLE, Robert Moore
GERMANTOWN, Germantown Co-op, Ass'n.
GLEN, Robert G. Moore
GLENS FALLS, C. A. Nobles and Son
GRANVILLE, Granville Co-op
HOOSICK FALLS, Robert L. Smith, R.F.D. 2
HUDSON, Nack Brothers
LACONA, Stowell Saw Service
MADISON, Charles J. Hughes & Sons
MARGARETVILLE, Douglas Kelly
MORRISONVILLE, Bernard Barber
NARROWSBURG, Roberts Mower Service
PINE BUSH, McDole Service Station
PLATTSBURG, Haylett Marine
RICHLAND, Lorenzo Hilton

SCHUYLERVILLE, Hayes Garage
SHARON SPRINGS, Virgil Winnie
SODES NEW YORK, Henry Smith
SWAN LAKE, Harold McGraw
WALTON, Russell Repair
WESTFIELD, F. J. Wood Co.
WHITNEY POINT, George W. White
WILLIAMSTOWN, Skinners Garage, RD 1

PENNSYLVANIA

ALDENVILLE, Karl Wildenstein
ALLENTOWN, C. Y. Schelly & Brother
BARTO, Ed Brumm Sales, R.D. 1
BETHEL, David Ebling
BLAIRSVILLE, Blairsville Farm Service, R.D. 1
CAMP HILL, L. W. Smith
CATASAUQUA, A. Newton Bugbee, Inc.
CENTERVILLE, Baron's Repair Shop, R.F.D. 1
CENTERVILLE, Merce Process
CLIFFORD, Wm. B. Lopatofsky
DALLASTOWN, Charles Hehman, R.D. 1
DALTON, Merle Clark, R.D. 1
DAUBERVILLE, Clarence R. Seaman
DOVER, Harry L. Wehler, Route 4
DOWMANSDALE, Sidle Feed & Hardware
DUNCANNON, Warren C. George, R.D. 1
DUNCANNON, Harry R. Roush, R.D. 1
ELIZABETHVILLE, Swab Wagon

ERIE, Miller Brothers Co.
FORKSVILLE, John Norton
GIRARD, E. G. Miller Feed & Seed Co.
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KIRKWOOD, L. H. Jackson
KLINGERSTOWN, Stanley's Farm Service
LAURENCEVILLE, Praver, Miller & Dye
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MILLVILLE, Klndt's Lawn Mower Service
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MOSCOW, Harold E. Henneforth
NEW BERLIN, Eugene Musser
NORTH EAST, Richard F. Maas
NOXEN, Crispell Farm Service
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SUNBURY, Lloyd Nace Motor Co.
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WAYNESBURG, Ira E. Stephens
WEST ALEXANDER, Don Swart Equipment
WESTFIELD, Ronald Mattison Equipment Co., RFD 1
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NEW JERSEY

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CAPE MAY COURTHOUSE, R. J. Barber
MILEVILLE, Solus Hardware



EDITORIALS

by GORDON CONKLIN



ON DEAD CENTER

Political leaders in New Jersey are in the familiar throes of trying to figure out how to get taxpayers to pay for the things taxpayers are demanding . . . and do it painlessly . . . or better yet blame the other party for the pain.

In 1963, farm real estate taxes in the Garden State averaged \$11.80 an acre, \$4.37 higher than Massachusetts, the second-highest state. For New Jersey, this amounts to an average tax of \$2.11 per \$100 of full value for farm real estate.

The state has neither sales tax nor income tax, but depends heavily on property taxes to finance schools, highways, and other local services. Property owners, needless to say, feel about wrung dry; some Garden State farmers claim they're literally being taxed out of business.

A few leaders advocate weaseling out of the perils of statesmanship by adopting a state lottery 'a la New Hampshire, and letting the people who don't know any better foot the bill (just like taxes on tobacco, alcoholic beverages, entertainment, etc.). I remain convinced that the "making sin expensive" concept has some limitations when it comes to equitable allocation of tax burdens, and in making taxpayers sensitive to the real needs and to the real costs.

I know there are legislators with guts in New Jersey who don't stand constantly in fear and trembling concerning their political futures. It's about time they put taxation on a broader and more equitable basis with some form of income or sales tax.

THE DILEMMA

Here's a headline that appeared recently in the American Farm Bureau Federation News . . . "Low Prices, Record Costs Highlight Current Farm Economic Picture." The article went on to point out that farm prices slipped to 74 percent of parity on last June 15, the lowest level in 25 years . . . this, amidst a generally booming economy and labor-management settlements sure to increase farm costs.

About the same time another publication came my way. It was the "OECD Observer," published by the Organization for Economic Cooperation and Development. One of its feature articles was called "Low Incomes In Agriculture;" it explored the fact that farmers are on the low end of the economic totem pole in all countries of the world.

The average farm income figures too often include income levels of a whale of a lot of places you and I wouldn't call farms. The social problem of low-income small-scale farms hasn't been sorted out from the economic problems of commercial farms. In addition, the very sizable off-farm income available to many rural families in this country isn't always taken into account when calculating average incomes.

The fact remains, though, that farmers feel endlessly frustrated as they gaze at huge aggregations of capital (corporations) on one side and the enormous aggregations of economic and political power on the other side (labor unions). Walter Reuther did pretty well, thank you, by the United Auto Workers . . . and he had a direct line to the White House while doing it! How can farmers take the UAW by the throat and say, "You either pay more for food, or you go without!"

Government, responsive to voters numbers, has given organized labor the laws that give

it muscle in the marketplace. You either belong, or you don't work . . . if you try to work when a strike is called, you get a busted head. Government has also authorized the corporation . . . an artificial "person" that can borrow huge sums of money and exert great pressure. How come we have a national policy making almost sacred the "family farm" with its individualism and small-scale enterprise, and at the same time promote a national policy of group action and large-scale enterprise that gives so much power to labor and corporations?

Two major solutions have been proposed. The NFO says bust heads, get tough, and carry on withholding actions backed up by picket lines, just as organized labor does. Others promote stronger farm cooperatives that can develop more "market muscle."

Frankly, I'm in favor of stronger farm cooperatives . . . aided and abetted by laws that will give them a chance to play more effectively at the rough and tumble of bargaining. If farmers are going to approach equality at the bargaining table, we've got to send a lot of sacred cows down the road.

For instance, if co-ops are to be more effective, farmer members are going to have to surrender a larger measure of freedom of action. There has been altogether too much betrayal of farm cooperatives in the past by farmers who could see a fast buck in the hand . . . then they came blithely back to the fold when the windfall was over.

My prediction is that, if farmers don't band together voluntarily in organizations with real teeth in membership rules, then agriculture will move more rapidly in the direction of becoming more like those huge aggregations of capital. How else can really effective bargaining power be attained?

THE HARDY ONES

The year . . . 2000. The place . . . a used-rocket yard near Cape Kennedy.

A man somewhat strangely dressed is arguing with a man in uniform. The official is saying, "Look, you're nuts to even think of trying to pilot these rockets to what you call the 'New World.' Even if you and your friends get there, which is unlikely, you'll be massacred by those orchid-skinned savages!"

"What's the matter with you people anyway . . . the government provides your dental care, child care, and medicare; it loans you money, guarantees the loan, and charges no interest. It pays you as much for not working as for working, guarantees you an annual wage, and pays you to compensate for your mental anguish if you are homelier than someone else. And then all it asks of you is to pay ninety percent of your income in taxes and to obey a few simple regulations!"

"You neglect to mention, my friend," says the other, "that those regulations dictate such things as how many children I may have, where I can build a house, and how many pounds of milk I may produce."

"My friends and I just haven't gotten with the welfare state, and we're too old-fashioned to accept the recent edict by the Supreme Court declaring the Constitution unconstitutional and doing away with the Senate. Besides, we don't feel at home any more since the Court's decision forbidding public officials to attend church services."

"All right, it's your funeral," growls the man in uniform, "you're first with the high bid, and your money is as good as anyone else's."

"Which isn't very much," answers the other. "We brought the cash in a trailer truck . . . all in thousand dollar bills. What with the national debt of a hundred trillion dollars, we're lucky that the truck would even hold the number of bills required . . . guess that's what is called inflation!"

"You're behind times," rejoins the official, "Congress just raised the debt limit another five trillion yesterday . . . some emergency program for war on wealth, or something."

"We won't bother to count your money . . . just run it over the scales for weight, and I'll do a random sample to make sure the bills are all the same denomination."

The arrangements finally concluded, the strangely-dressed man beckons to a small group of people watching silently. They assemble around the small and somewhat worn space rocket, and he takes off his broad-brimmed hat. After a brief prayer, he opens an insulated case and removes an icicle the size of his arm.

Grasping it firmly, he smashes it across the rocket's nose and intones, "I christen thee the Mayflower."

WAY TO WISDOM

Once upon a time a man named Uanme decided that wisdom was indeed the priceless jewel of life. So he visited a neighbor, known far and wide for his wisdom, to inquire concerning how to attain it.

"My son," the old man said, "to attain wisdom requires that one be teachable. The greatest stumbling block to being teachable is human pride, which can admit no error nor even ignorance of the best way to proceed."

"Acquiring wisdom demands that one listen carefully to his enemies, for they will often tell him more of the truth than will his polite friends."

"You once stormed in raging anger out of the office of the banker who had bluntly told you that you were a poor money manager . . . but a dozen merchants thought the same and would not tell you. While you were still a dairyman, you resented the suggestions of the milk inspector about how to produce a better quality milk. That 25-bushel wheat crop you harvested last summer should remind you that you gave the county agent a hard time when he tried to help with a soil fertility program. And remember when you told the power company representative before the barn burned that you would never go to the expense of rewiring your buildings?"

"The best managers are the ones who are alert to new ways of doing things, always listening, constantly asking questions, continually putting together in their minds a host of ideas and bits of information that all jell suddenly into profitable decisions. They never know all the answers, but with a refreshing humility find out all they can before making up their minds about things of real importance."

"Wisdom, my son, is no magic formula . . . it is merely an open and humble mind constantly thirsting for the fountains of knowledge and understanding. And its foundations are embedded in a confidence that can only be labelled spiritual."

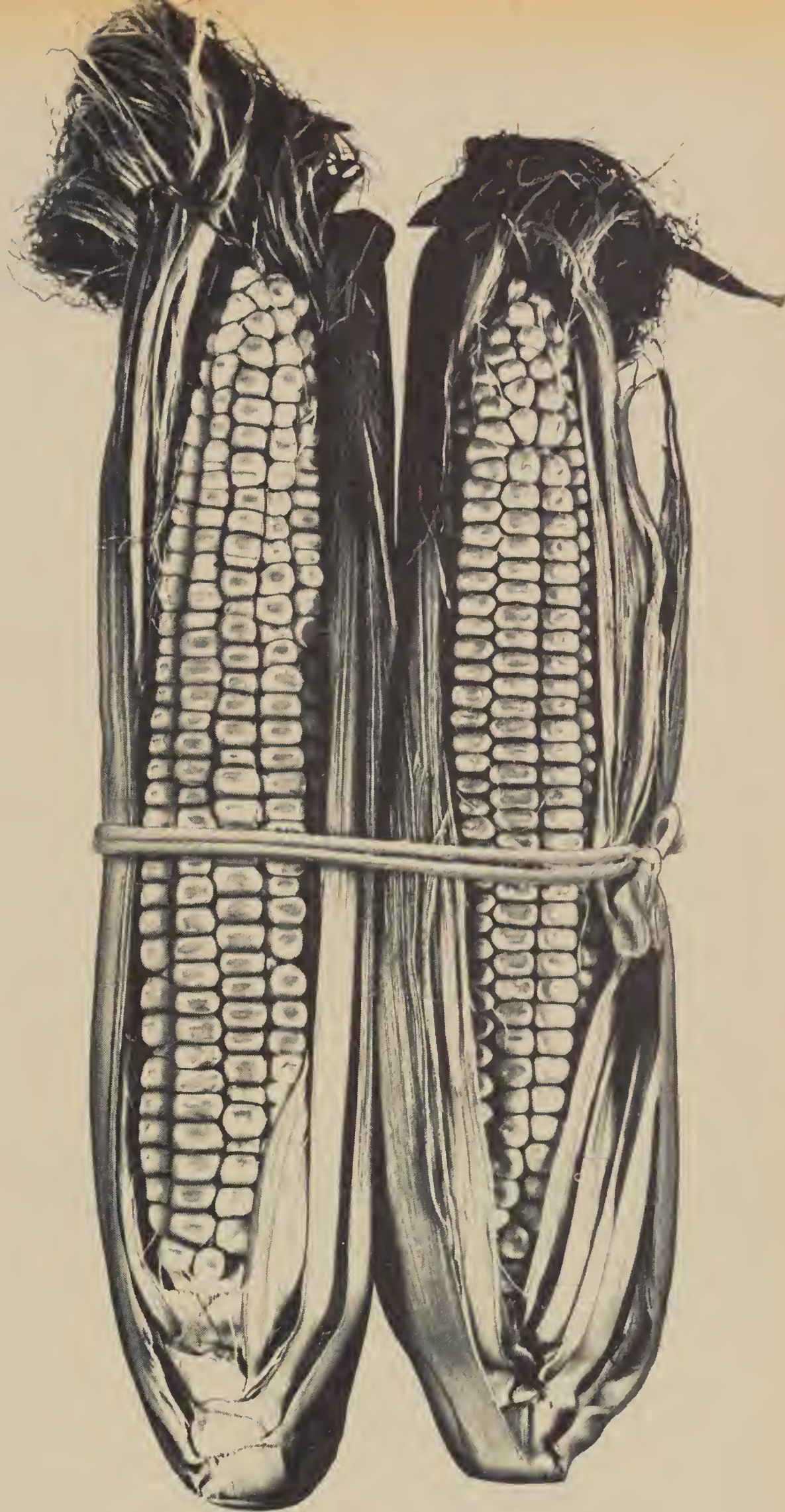
THE GOOD EARTH

One of my joys of living is the privilege of working in the garden. Beginning with the new seed catalog right through until the last carrot is pulled in early winter, I never cease to marvel at the miracle of life that springs forth from tiny seeds.

The hoe is a curse if it must be used for days on end, but applied for a few hours it provides better exercise than a golf club. And the pay-off comes with the unmatched quality of freshly-picked sweet corn and blazing-red tomatoes fresh from the vine!

A garden is good for the muscles, a tonic for the mind, and an inspiration for the soul.

American Agriculturist, January, 1965



the new Agway:

how complete crop programming can double your corn harvest even in drought years

If you're not harvesting at least 20 tons of corn silage or 100 bu. of ear corn per acre, you should consider Agway's Complete Crop Program for Corn. It makes good crops. And good sense.

On 609 fields enrolled in Agway's 100-20 Corn Club, over a three year period, growers harvested an average of 24 tons of corn silage and 111 bushels of ear corn per acre. Despite the effect of continued drought conditions, corn yields on these farms were double the statewide average yields.

That's like adding a row every time

you plant one. Or getting two stalks and two full ears where only one has grown.

Why were growers so successful with these 609 fields? All used the ideas that make Agway's Complete Crop Program for Corn the way to greater net returns. It takes most of the guesswork out of growing good crops.

And now is the time to make your plan. Call your local Agway Store or Representative and ask for the crop man. He will work with you to develop and execute a complete crop program—designed specifically for your farm,

your needs.

This includes the right amount of lime, the right fertilization practices, the right seed and plant population, the right weed control, the right judgment for tough management decisions. The right plan—made now—can help you increase per acre yields and decrease unit costs.

Remember what the 609 farms could do, even in drought years. Join them. Start your Complete Crop Program for Corn...today. Agway Inc., Syracuse, N. Y.

Agway

Created from Eastern States and GLF

COMPLETE CROP SERVICE
for greater net returns

THE LATEST ON MANURE SPREADERS

BY WES THOMAS



ABOVE

There's a wide variety of equipment available to help with this job that's a daily chore on most dairy farms. This spreader has a single beater with rip-saw blades for distributors.



RIGHT

Chain flails attached to a fore-and-aft shaft wind around the shaft when the power-take-off starts. As speed increases, the flails unwind, pulverizing and throwing manure out the side. No aprons, beaters, or gearboxes are used.



RIGHT

This basic pto-driven spreader can be equipped with either of two distributor arrangements: triple beater and helical wide-spread combination, or single drum-type beater and spreader with knife-like fingers.



BELOW

Here's a recently-introduced 250 bushel spreader with an overshot-under-shot action from two counter-rotating beaters.



BASICALLY, a manure spreader is a device for accepting, transporting, and distributing animal wastes. However, the range of requirements in each of these three major operations has fostered a multitude of types and designs of spreaders. The wide variety of currently available machines makes it possible to select and tailor one to fit the requirements of the producer of dairy cattle, poultry, swine, beef cattle, or sheep.

Of course, spreaders especially designed to handle material from liquid manure arrangements are available. However, this subject has been treated all by itself in previous issues of *American Agriculturist*, so we'll consider here only the more conventional types of spreaders.

Here's a review that will help you pick the one that most nearly matches your requirements:

Size: Capacities (which are measured in bushels) range from approximately 75 to 250. For the dairyman who plans to haul manure each day of the year, a relatively small capacity spreader is adequate. As a general rule of thumb, spreader capacity should be about 3 bushels for each cow in the herd. Thus, a 100 bushel spreader would be adequate for a 30 to 35 cow herd — if manure is hauled daily.

Shape or configuration of the spreader may be an important factor here. A relatively low and wide-spreader is usually more convenient if the spreader is to be loaded from a carrier mounted on an overhead track, or from a gutter-type barn cleaner.

Dried Method: There are two basic arrangements here — ground drive and power-take-off.

The ground drive is basically an updated version of the earlier horse-drawn spreader, in which the ground wheels provide the power to turn the distributor and to move the apron. The tractor simply provides drawbar pull and supports the front of the spreader. It is only necessary to attach the tongue to the tractor drawbar; there is no power shaft to connect.

The rotary power available at the tractor pto can be used to drive the spreader directly, and the function of the spreader wheels is limited to physically carrying the load.

Within the pto type there are several versions. One of these uses a rotary power shaft mounted on one side of the spreader box to transmit power from the front of the spreader to the rear-mounted gear box which drives the beaters and the apron. Power from the front shaft is transmitted to this side-mounted shaft either by a chain-and-sprocket arrangement or by a belt-and-sheave arrangement.

A more recent innovation is the

long V-belt to transmit power all the way from the front pto shaft to the gear box at the rear of the spreader. In this arrangement, idler sheaves guide the V-belt around the corner of the spreader; a gear reduction or ratchet arrangement at the rear reduces the speed to that required by the working elements of the spreader.

Distributor: In the regular wide spread and beater combination, the beaters tear and shred the material as it is delivered by the apron. The wide spread consists either of a large auger-like shaft, or a shaft with a number of paddles mounted at an angle. When the wide spread rotates, the shredded material hits it and is distributed in a thin layer over the ground.

A more recent arrangement is the single beater, which also serves as a spreading device. This beater may be either a drum with teeth projecting from it or shaft-mounted paddles with teeth on their outer edge.

A third type arrangement, the flail beater and distributor, is similar in principle to a hammer-mill feed grinder. A single rotating shaft carries a number of heavy swinging knives

(Continued on page 16)



**We're proud of
Lou Loughlin,
who's known in
the central border
counties as...**

the man in the checkerboard tie

Lou Loughlin knows what it takes to make money with a dairy or poultry farm today. He knows because he has made it his *business* to find out. All of his adult life has been devoted to teaching profitable farming . . . first as Vocational Ag instructor (in Jasper, Attica, Wellsville, and Whitesville), then for seven years as head of the animal husbandry department at Alfred State. In his seven years with Purina, Lou has taken part in every training course we've offered. Now we often ask him to help teach younger men.

In addition to his work with leading farmers, Lou is in regular contact with bankers, vo-ag instructors, county agents, feed dealers, and other community leaders in the New York counties of Allegany, Steuben, Chemung and Schuyler . . . and in the Pennsylvania counties of Tioga, Potter and Bradford. About a dozen dairymen have "graduated" from a series of informal lectures, which Lou calls his "Step by Step Dairy School."



A natural-born leader, Lou is an active member of the Advisory Committee at Alfred and other state-wide agricultural groups.

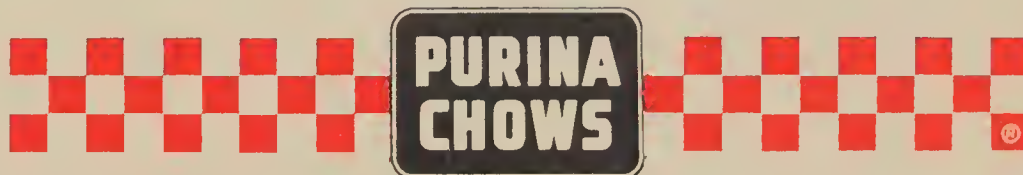
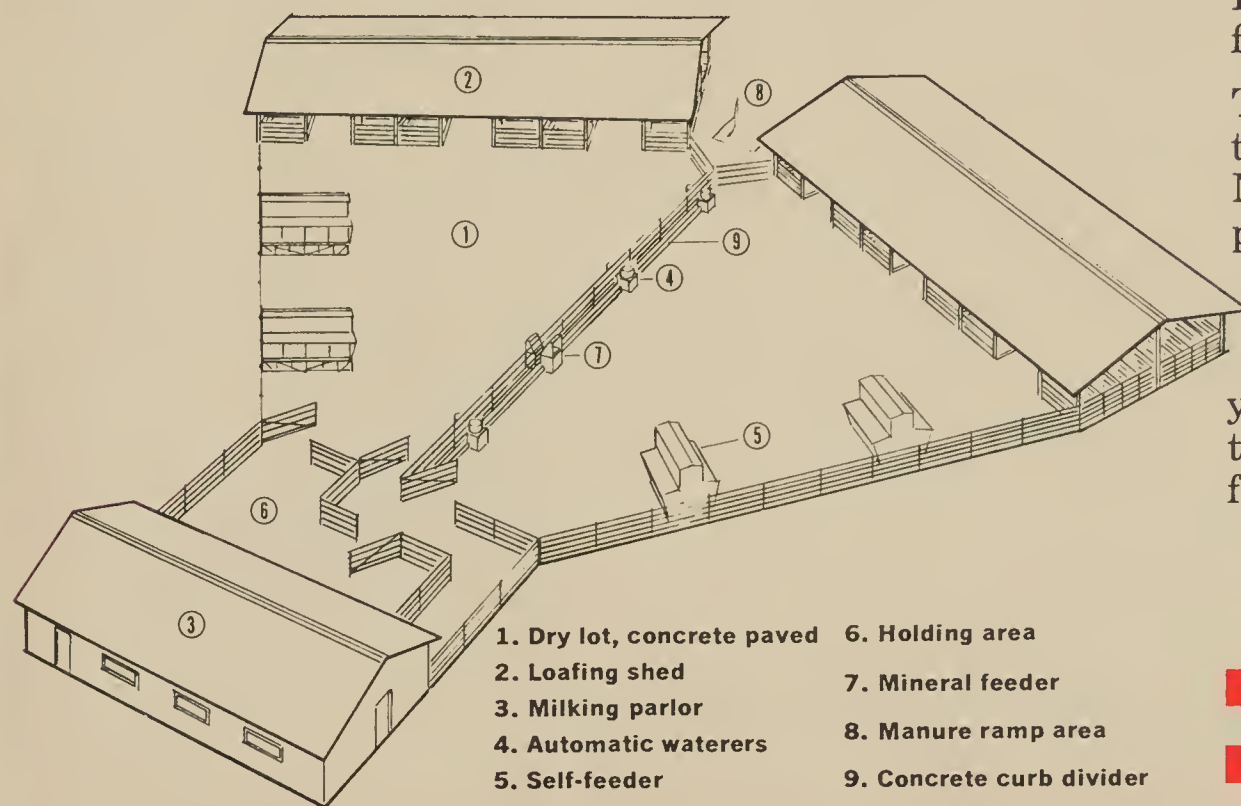
Yes, Purina is proud of Lou Loughlin and the man with the Checkerboard Tie in your own community.

Your man in the Checkerboard Tie may represent many things: Perhaps an extra ton of milk per cow or an extra \$100 per 1,000 layers per year. Extra income through sound management, careful sanitation, good breeding and good feeding.

Low cost production . . . the reason why more farmers feed Purina.

Typical of the exciting new ideas which come to you through your man in the Checkerboard Tie is the Purina Milk Factory. This brand new approach to low cost milk production often does away with the need for pasture, hay, silage, or green chop. It may drastically lower your investment in machinery, land, fences, fertilizer, and other factors which make up a large portion of your milk production costs. Net result; low cost production. Your Purina dealer or salesman is the man to see for further information on this new development.

Ralston Purina Company • St. Louis, Missouri



THE **NEW** ONES!

Why put a third wheel on a great grain drill?

Simple. For even greater maneuverability, simplicity and convenience. The IH No. 10 grain drill has long been a big reason IH drills are so popular with so many farmers. But to make this drill even more agile and easy to use—particularly in tight headlands, narrow terraces and small fields—IH added the third wheel and made this new semi-mounted version.

You'll see proof of the simplicity of this drill when you first hitch up—2-point or 3-point. Just back in . . . connect the tractor's hydraulics . . . and you're off. Tractor and drill are locked together as a single unit.

Another touch of the hydraulics when you pull into the field and you're planting. Those two end wheels drive the planting and fertilizing units. No clutches or rockshafts, levers or ropes.

This drill has thirteen openers with 7" spacing and the biggest capacity-per-foot combination seed and fertilizer hoppers you can get.

But learn for yourself why IH put a third wheel on a great grain drill. Your International Harvester dealer will be happy to put one through its paces for you. Need financing? Then get the facts on our "pay-as-you-grow" plan. International Harvester Company, Chicago, Illinois 60601.



The people who bring you the machines that work



IH 10 SEMI-MOUNTED DRILL—LOW-COST, HIGH MANEUVERABILITY



Precision feed cups and fluted rolls dole out seeds with one-at-a-time accuracy. Metering of seed is uniform across the width of the drill. Handy seed adjustment.



Exclusive, drop-bottom fertilizer hopper is easy to clean—swing the hinged bottom down and brush. IH star feed wheels give accurate, sure delivery of fertilizer.



Super-big IH combination hopper holds a whopping 85 pounds of fertilizer and $1\frac{1}{4}$ bushels of seed per foot. Apply fertilizer at rates from 78 to 800 pounds per acre.



Seeding depth is easily adjusted by changing spring pressure on pressure rods or by raising or lowering end wheels. Openers have exclusive triple-sealed bearings.



Drill hooks to 3-point hitch or 2-point with adapters (opt.). In working position drill floats to seed evenly on rough ground. Feeds stop when wheels leave ground.

BHL



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important

but

8,000 dairy farmers are!

Working together through their own organization for a better milk market for all dairymen, members of 80 Metropolitan Bargaining Agency co-ops -- 8,000 strong -- are helping you.

Why don't you join in this grass roots program of building your milk market through effective cooperation.

For help in organizing a new cooperative, write



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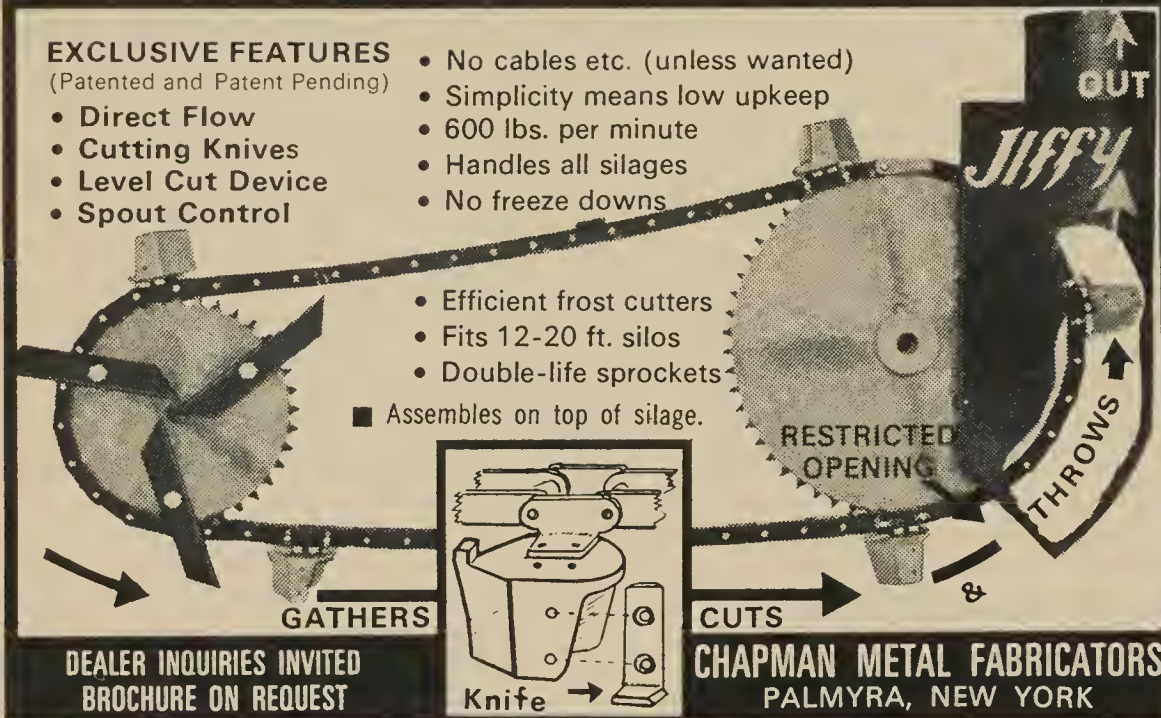
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PERSONAL FARM EXPERIENCE

TURNABOUT

We're going in the opposite direction from a trend that started a number of years ago and are converting a house for 10,000 hens to a dairy barn for 120 cows. The building, measuring 36 by 200 feet, was a three-story laying house. We removed the top floor and used the flooring to strengthen the floor over what is now the dairy stable; timbers from the upper floor were used to remodel and strengthen floor supports in the free stall area.

The free stalls have a curb behind them measuring four inches wide and twelve inches high. The corner of this curb toward the stall bed is rounded so there is no sharp corner to bruise the cow. One foot of bedding, mostly sawdust, is used over the sand forming the floor of the stall.

Warm Barn

It will be a warm barn; it was already insulated as a poultry house. We'll have fans to aid ventilation when the remodeling is complete.

Hay is fed free-choice in a rack along one side of the structure; silage in a concrete bunk 200 feet long just outside the opposite wall. The silage-holding space in the bunk is three feet wide at the top, two feet wide at the bottom, and two feet deep. The wall that was solid in the henhouse has been opened up sufficiently so cows can reach into the bunk even though it is built outside the building itself. To prevent too much cold air from entering, a system of doors will close the openings when not in use. The bunk itself is roofed with corrugated plastic roofing.

Silage is put into the bunk with a self-unloading wagon drawn alongside. Either greenchop or stored silage can be delivered in this manner. Our silos are horizontal structures . . . one bunker 30 x 40 feet, with silage 8 feet deep. By the way, we put sawdust, about four feet deep, on top of the silage and get bedding by "uncapping" the silage. A front-end loader on a tractor handles both materials out of the stack. The other silo is a pit with a cement floor. All silage is corn . . . no hay crop materials are ensiled.

Manure Handling

Manure is handled by scraping into a pit eight feet deep at the end of the building. We already have a tank-type spreader that will handle liquid or semi-liquid manure. Whether we'll pump out the contents of the pit, or handle it with a bucket loader on the tractor remains to be seen.

The milking parlor is located right in the free stall area, rather than being by itself at one end or in a separate area. It has a double-four herringbone and we'll start with one man handling four milker units . . . may eventually go to eight units and two men milking.

We don't plan to pasture the herd at all next summer, but use greenchop and silage for summer roughage feeding.

The dairy business isn't new to

us; we've had 50 cows in tie stalls and stanchions right along. This barn will now be used for young stock and the milkers will be in the remodeled building. — Theodore and Robert Frizzell, Charlestown, New Hampshire.

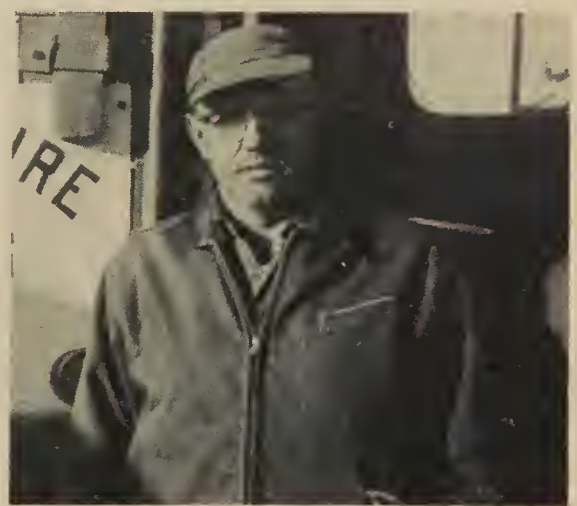
ROUGHAGE-CORN

A number of years ago, I decided to have a fall-freshening herd that would be on the same roughage all year. I'd seen cows drop sharply in production when switched from corn silage to grass silage.

In 1964, I plowed up all my cropland except 10 acres and planted it to corn. Soil tests have been taken each year on each field, and this year's test indicated a general fertilization "prescription" (in addition to 20 tons of manure per acre) of 200-250 pounds per acre of urea plowed down, plus 200 pounds of 15-10-10 applied by the planter.

Corn is as mature as possible when ensiled. A few corn seedlings always grow from the silage along the edges of our bunk silos. One of these silos holds 1,000 tons; we also have two smaller ones. Plastic is put on top of silage to seal it against air, and baled straw packed solidly over the top to protect plastic and prevent freezing.

Our Holstein dairy herd of 50 to 60 cows (latest HIR record 15,760 pounds of milk) gets all corn silage as a roughage. Heifers get hay up to 5 months, but then begin getting silage and limited hay (about 4 pounds hay per day). — Carlton Greenwood, Westminster, Vermont



Richard Stafford of Peru, N.Y.

LARGER HERD

My brother Avery and I are in the process of expanding our dairy from around 60 milkers to 80, at least for the present.

One reason for the decision was that we had land to grow feed for more cows, but to handle more cows we had to have more room. So Avery took a trip to see a dozen new setups, after which we started to build a pole barn with free choice stalls.

We plan a few changes. Corn acreage will be stepped up from around 30 to 60. We will stop growing oats. Corn will follow corn for some years, and meadows that run out may be plowed in the fall and seeded in the spring, or we may seed after corn without a so-called nurse crop.

(Continued on next page)

Personal farm experience...

We think we have a good herd. The average production for the past 12 months is 14,053 pounds of milk. We are not sure, however, that it pays to feed a cow to get her absolute top milk production potential. We think maybe feeding for near top production and keeping one or two more cows may bring in more money. Incidentally, milk production per man last year was around 276,000 pounds.

We are growing more corn for several reasons. First, we can get more total digestible nutrients per acre than from hay. Second, we can control quality better; under the best of circumstances some hay gets wet. Third, we think it's easier to mechanize corn growing, harvesting and feeding.

We feed as much as 100 pounds of silage per cow per day. Silage will be fed automatically in a bunk feeder in the pole barn. Part of the herd will stay in stanchions because we have them, but all cows will go through the milking parlor. One silo for corn in the old barn has an unloader.

Expanding the herd was a big decision, but we think we can produce milk at a lower cost per cwt. Come around in a couple of years and I'll tell you whether or not we made the right move! — *Richard Stafford, Peru, N. Y.*

BARN FEEDING

We feed our dairy herd in the barn year around. They go out on a four-acre exercise lot during summer nights and fall days, but get practically all their TDN in the barn. We don't like to green-chop, believing they're fed better from silo, grain bin, and haymow.

Our silo is a 14' x 50'; we grow a short season corn because our elevation is 1,200 feet and the growing season a bit short. Alfalfa grows well if it gets enough lime and fertilizer. We finished haying at home in '64 about the 26th of June and cleaned up on July 5 some standing hay we bought.

We're proud of the fact that our milk production figures out in the neighborhood of 500,000 pounds per man. But this kind of record keeps our noses pretty close to the grindstone, so we decided to vacation at home. The family took a vote and voted for a swimming pool... one 20' x 40' with a maximum depth of 8.5 feet. — *Stephen Steciak, Jr., Little Falls, N. Y.*

DIVERSIFIED FARMING

At a time when everyone seems to be specializing I am following a diversified type of farming. It is doing all right for me, so I plan to follow it, with a few changes.

We have 55 head of cattle, 38 milking, an acre and a half of strawberries, 15 acres of potatoes, 10 acres of sweet corn, 150 gallons of maple syrup, and several acres of small vegetables.

About half of our sales are made at a roadside stand. Our farm is on Route 22 in Rensselaer County, New York. Traffic is fairly heavy, and of course with-

out the stand we would follow a different type of farming.

Practically all of the strawberries are sold at the stand, but a few customers pick their own. The relatively few potatoes not sold at the stand are sold to other stands or put in the cellar and sold to stores.

We buy most of the fruit sold at the stand, and local housewives supply us with some baked goods. The stand is open from mid-June to November 1.

This is not a small farm. The home farm has 200 acres, and I rent an additional 150 acres. I hire two full-time men, and in the summer usually have six extras.

I do plan a few changes. I plan to grow more potatoes and straw-

berries, and to increase the roadside stand business. We will concentrate more on sweet corn and tomatoes, and grow a smaller acreage of small vegetables.

You might think it would be impractical to have the equipment to grow a small acreage of potatoes. Probably it would be if we were selling wholesale. We don't have the latest equipment, but we do have a sprayer and are able to control insect pests and diseases. We have a one-row digger, and pick up potatoes by the "stoop method." But we get a good price at retail, which more than offsets any extra cost of growing a bushel of spuds. — *Andrew Pease, Stephentown, N. Y.*

SOIL STUDY

Did you know there can be as many as fifty million bacteria in one teaspoon of fertile garden soil? The total weight of animal life in surface soil 7 inches deep over one acre area is estimated to be five tons.

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A spell back I made some generalizations about withholding actions and some of the implications of the National Farmers Organization's activity. I hadn't planned to say any more, but some letters from NFO members have stimulated me to make some additional comments.

Each of those writing suggested perhaps I had gone off half-cocked without really knowing or understanding the NFO movement. I don't think this was the case. The thought came to me that possibly many of those who turn to this organization do so out of sheer desperation rather than a real knowledge of what has been the record of NFO. It's very understandable that drought and unsatisfactory prices lead to discontent and a feeling there should be a better break for farmers.

This feeling can easily be fed and encouraged by reminding that Cornell figures show that the average cost of milk production exceeds the sales price. Then, if you throw in the oft-repeated statement that the co-ops never agree and therefore can accomplish little, you have the stage about set where an organization which stands up and offers to get farmers "what they deserve" is bound to have an audience. Nor would this be the first time that discontent has led to hasty action.

No one denies that the drought has put a real pinch on many, many farmers. This does not make the milk they produce worth any more than its supply and the demand for it would make it worth. Any who think they can arbitrarily



Gayway Farm Notes

by HAROLD HAWLEY

ask for and get 60 to 70 cents per cwt. more for milk assumes either that dealers make much more than any studies I have ever seen indicate that they do — or it assumes the price to consumers can be raised without materially hurting consumption, and thereby Class 1 utilization. Really, the way for those who feel that milk is worth more is to buy a plant and go into marketing and retailing and see how they come out.

Cost Of Production

Always this business of assuming that farmers (or anyone else) are entitled to cost of production bothers me. Some people's costs are so high they deserve no consideration. Any who advocate average cost of production plus 5 percent on investment (as does NFO) should remember that this will still leave about half the farmers in trouble — because about as many have costs higher than average as below (that's how averages are made).

Those who wrote me were critical of the inability of the dairy co-ops to agree and work together. Sure, there have been times when we muttered a little, but it's been our observation that we mostly

talk about the times they disagree and say nothing about the areas of agreement, which greatly outnumber the times of disagreement. We may also tend to overlook the fact that there is a positive attempt to improve co-op relations on the part of the co-op leadership.

All in all, there continues to be the feeling that the best way toward improvement is to work through existing organizations, whose approach may not be as drastic but will perhaps be more sound.

Now let's look at the record. Withholding efforts have been staged in the Midwest off and on for several years. These actions have not been able to bring about the price rises. All who look for "results" should study this record.

The other part of the record is one to cause anyone to go slow about joining. It is one of violence, of neighbor against neighbor, of fence cutting, and other lawless acts beneath the dignity of farmers. I have talked with many farmers over the years who saw these NFO activities at close range, and they warn that the most damaging results of the movement have been the hate — the splitting of farmers and of farm organizations. These last long after NFO has left!

I suppose every area and section has some claim to fame and some distinguishing characteristics. We constantly refer to somebody as being from the "fruit belt" or "down-state" or the "southern tier" or from the "beautiful Champlain Valley" (just threw that one in for Don Green up at Chazy), or from the "snow belt" — or whatever. Our claim has always been that we were in the heart of the Finger Lakes. This is quite an area, however, so now we think we should narrow it down to say we are in the Drumlin Country.

Except for an area in southern Wisconsin and a small area around Boston harbor, we have a corner on these distinctive glacier deposited hills. They extend north and south and usually taper off to the south. Many are sources of sand and/or gravel. We frequently think how nice it would be to operate on level land, but the compensation is the beauty of this rolling country.

As parts of different farms we own or rent our stock pastures on four drumlins, so unless someone challenges us we are going to claim to be in the heart of the unique and wonderful Drumlin Country. All this comes as a result of hearing John and Eunice Stone, from what used to be called the "North Country," refer to their area as "the great Seaway Valley."

SOME REFERENCES

Discussions at our table range far and wide — sometimes well beyond the range of our knowl-

(Continued on page 17)



FARM DOLLAR GUIDE

BRIEF OUTLOOK for 1965 includes: Total Net Income up slightly above '64 estimate of \$3,555; Net Per Farm up more because of fewer farms; Potatoes and Onions likely to go higher in coming months; Beef Cattle about the same as '64, then prices up for a few years; Egg prices (Turkeys, also) slightly below '64; Broilers may be up a little; Hogs, a little higher than '64; Milk, about the same as last year in spite of increased supply; Government action, probably continuing feed grain and wheat program, big land retirement program (maybe 40 million acres) maybe more direct payments (called by some other name) to farmers.

DROUGHT EMPHASIZED fact that crops do better when supplied with adequate lime and fertilizer, when weeds are controlled, when crops are planted early, when soil is firmed over seed by press wheels or cultipackers.

TESTS INDICATE that where corn plant population is 20,000 per acre or more, narrower spacing of rows may increase yield by 5%. In Illinois, best yields came with 28,000 plants per acre in rows 30 inches apart.

THE "PLOW PLANT" method for corn does not seem to be gaining rapidly. Instead, there is trend toward "minimum tillage," largely by combining several operations such as harrowing, fertilizing, and applying chemicals for weed control.

LOOK FOR more government emphasis on parity of farm income, less on parity of prices. Makes sense! There are indications that USDA plans to encourage increase in power of farm cooperatives (U.S. now has over 9,000 farm co-ops with 7 million members, doing \$13 billion of business). Drastic change in farm policy unlikely. Trend is toward exporting more food and for more government involvement in farming — including more credit, more grants, more recreation, more aid to education.

FOR FIRST TIME since 1960 U.S. sugar beet acreage is limited. Allotment is 1,375,000 acres, 6% below 1964. Back in 1960 acreage was 972,000.

PREVENT POULTRY DISEASES by using medication in the feed; use in water to CURE actual outbreaks. Reason: some sick birds will drink but not eat.

NEW YORK COOPERATIVE EXTENSION SERVICE has valuable pamphlet, "Which Dairy Cleaner Should I Use?" You can get it from county agent or College of Agriculture at Cornell.

DO NOT USE copper pipe in milkhouse plumbing. With some water, copper in pipes used to wash milk utensils causes off-flavor to develop in milk.

GLEN LAKE, President of National Milk Producers Federation, says: "For some years farmers have been going through a soul-searching process. A decision had to be made between a moderate price policy, which would enable each farmer to adjust his operations to obtain the greatest net returns, or a higher price for limited marketings, but with outside control over his farming operations."

CORN FOR DAIRY COWS

High-moisture ear corn is being used successfully by an increasing number of beef feeders and dairy-men. There is less field loss before harvesting; storage costs are often considerably less; there may be less loss during storage, especially from rodents; a late-maturing crop can be profitably salvaged.

In addition, properly-stored high-moisture ground ear corn often has a higher nutritive value for beef cattle than dry ground ear corn — as much as 8 to 10 percent. There appears to be very little, if any, difference between dry and high-moisture corn for dairy cows.

In a Wayne Research Center dairy test, high-moisture ear corn was fed in a manner comparable to dry ear corn, with supplements. There was only a slight advantage for the dry corn, and it appears that high-moisture corn can be successfully fed to milking cows.

Wayne researchers have made a study of the value of corn cobs in a balanced dairy ration, which showed that with shelled corn at \$1.12 per bushel and supplement at \$100 per ton, there is an extra value of 11 cents per bushel for the cobs in a bushel of ear corn — or \$10 per acre for 90 bushel corn; stated another way, the cobs were worth \$16 per ton.



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Arkport—Francis Gowiski—RD #1
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Staten Island—Trimalawn Equip.—2081 Victory Blvd.
Staten Island—United Rent-Alls of Staten Island—3874 Richmond Ave.
Stone Ridge—Dedrick Pow. Equip. Co.—Cottetkill Rd.
Summitville—L. Finkle & Son, Inc.—Route 209
Sylvan Beach—Koster Building Supplies, Inc.—9th Avenue
Syracuse—Alex. Grants' Sons—935 Erie Blvd. East
Syracuse—Reliable Farm Supply, Inc.—2083-85 Park Street
Syracuse—West Genesee Sales, 2522 Genesee St.
Tarrytown—County Power Tool Company—625 White Plains Road
Thendara—Dan Hudon—Route 28
Troy—E. J. Goyer—R. D. 1
Trumansburg—Millsbaugh Brothers—Cayuga St.
Tupper Lake—Herve St. Onge—39 Broad St.
Warrensburg—Carl R. Kenyon—Route 28
Warwick—Walter Equipment Company
Waterloo—Seaway Marina, Inc.—473 Waterloo-Geneva Road
Watertown—White's Lawn Supply—RD #4 (c/o C. Howard White)
Wayland—Gross & Didas—12 Main Street
Wells—Floyd Simons—Box 138 Old Wells-Speculator Road
West Albany—Abele Tractor & Equipment Company—72 Everett Road
West Hampton Beach, L.I.—West Hampton Fuel—112 Montauk Hwy.
West Henrietta—James R. Hanna, Inc.—6800 West Henrietta Road
Westport—Marshall F. Fish—Rt. 22 on Lake Champlain
West Winfield—West Winfield Farm Supply
Whitehall—Norman H. MacLeod Saw Shop—Comstock Road
White Plains—The Lafkin's Golf & Lawn Supply Corp.—1200 Mamaroneck Avenue
White Plains—Pickard Hardware, Inc.—203 E. Post Road
Whitney Point—H. A. Penningroth & Son

NEW JERSEY
Allendale—Allendale Equip. Co.—317 Franklin Twp.
Allenwood—Sigler's—Rt. #34 Spring Lake Circle
Bayonne—Allied Equip. & Supply Corp., Inc.—691 Broadway
Bayville—Dover Sup. Co.—Box 225—Mill Creek Rd.
Bergenfield—Bergen Rental Service, Inc.—150 South Washington Avenue
Blairstown—J. C. Roy & Son
Branchville—The Roy Company
Camden—Antrim Hardware Co.—1514 Federal St.
Cliffside Park—Halton Hdwe.—666 Anderson Ave.
Clinton—Philip G. Berger—Box 5286—Route #22
Cranford—Andy's Handy Service—117 South Ave. W.
Dover—Handymans Tool Shop—Centergrove Rd. & Route #10
Eatontown—Grasslands, Inc.—Box 94
Elizabeth—A-M Tool Rental—69 Cherry Street
Englishtown—Joseph J. Szczepanik—Union Valley Road
Fairview—Edge Grinding Shop—388 Fairview Ave.
Freehold—C. H. Roberson, Inc.—29 Court Street
Garfield—Ralph's Hwg. Serv.—Rt. 46 & Boulevard
Gladstone—G. F. Hill & Company
Hackettstown—M. B. Bowers & Son, Inc.—128 Willow Grove St.
Hammonton—Parkhurst Farm & Garden Supply—301 North White Horse Pike
Hanover—Do It Yourself, Inc.—Route #10
Harrison—H. I. Karu—215 Harrison Avenue
Hazlet—The Service Equipment Co.—3141 Route 35
Hewitt—Sportman's Boats & Motors—W. Shore Rd.
Hightstown—C. H. Roberson, Inc.—Rt. 33—Mercer Street
Lambertville—John Kurtz—R. D. 1
Lawrenceville—Lawrenceville Hardware Company—2667 Main Street
Ledgewood—New Jersey Lawn & Power Mowers Equipment—Route 46
Little Ferry—Ted's Lawn Mowers—15 Riverside Ave.
Madison—Tractor & Lawn Mower Sales & Service—331 Main Street
Maplewood—Gauthier Door Check—2 Burnett Ave.
Medford—Fred Myers, Jr.—RR #2—Box 304
Middletown—Monmouth Mower Shop—656 Route 35
Monroeville—Albert Weber—Route 538—Swedesboro-Franklinville Rd.
New Egypt—J. R. Caines—Route #539
Northfield—Vic Collins—2101 New Road
North Plainfield—United Rent-Alls—714 Route #22
Oakland—Bergen Power Equipment—593 Valley Rd.
Old Bridge—Old Bridge Tractor—RFD—Box 328
Old Bridge—William J. Rainaud—Box 95—Hiway. 9
Paramus—Artie's Hardware & Machine Shop, Inc.—495 Paramus Road
Penns Grove—R. F. Willis Co., Inc.—7 Oak St.
Pine Brook—Shulman Tractor Co., Inc.—Route 46
Pompton Plains—Livingston Sport Center—Route 23
Princeton Junction—Grover's Mill Company
Riverton—Riverton Fm. & Garden Sup. Inc.—Rt. 130
Roseland—Needham's Grinding Service—191 Eagle Rock Avenue
Saddle Brook—Point Service & Supply, Inc., 112A Route 46
Short Hills—Millburn Grinding Shop—658 Morris Turnpike
Somerset—Frank's Building Supply Co.—619 Somerset Street
Somerville—Post Stores, Inc., US Route 22
Summit—Glenjay's Mower & Garden Shop—385 Springfield Ave.
Sussex—Len's Service Station—R.D. 1
Trenton—United Rent Alls—1690 Pennington
Tuckerton—Margraf's Hardware—North Green St.
Union—Rent-A-Tool—2491 Route 22
Vincetown—Wells Mobile Service—Route #206
Vineland—Swanson Hardware Sup.—533 N. E. Ave.
Waterford Works—Rusnak Bros. Inc.—Chew Road
Westfield—Storr Tractor Co.—469 South Ave. E.
Wharton—J. W. Malson, Sr.—Route 15 (RFD 2)
Williamstown—Weed's Lawn & Garden Mart—311 South Black Horse Pike
Woodbury—Arber's Lawnmower & Engine Service—962 North Broad Street

HOMELITE BRANCH OFFICES: 740 New Loudon Road, Latham, N.Y.; 2518 Erie Blvd. East, Syracuse, N.Y.; Rt. 1, Boston Post Road, Port Chester, N.Y.; 1650 William St., Buffalo, N.Y.; 39 River Road, North Arlington, N.J.; 1006 St. George Ave., Avenel, N.J.

Manure spreaders

(Continued from page 6)

which are arranged to cut and shred the material delivered by the apron, and discharge it toward the back of the spreader. A hood or cover prevents the material from being thrown upward and forward.

Another flail type spreader consists of a tank lying on its side in which rotates a shaft with chains attached. This spreader will handle either semi-liquid or solid manure; it has no aprons, beaters, or gear-boxes and therefore won't freeze up no matter how cold the machine may get.

Construction: In most machines, steel is considered the modern re-

placement for structures which may have at one time been made of wood. But this is not necessarily the case in manure spreaders. The corrosive effect of manure acids on metals has encouraged the retention of wood as the material for spreader boxes. This wood is, of course, treated with chemical preservative to lengthen its service life. However, currently available steels with good corrosion resistance permit spreaders to be constructed entirely of steel.

Attachments: All manufacturers offer a number of attachments or optional devices to adapt their spreaders for special-purpose use. These optional attachments enable the user to tailor a spreader to his own specific requirements.

For example, to prevent loss of

manure from the rear of the spreader on the trip from the barn to the field, there are available a number of rear endgates. These rear endgates, when combined with a front-apron retaining device, also permit the spreader to be used to haul manure with a high percentage of liquid in it. The rear endgate may be operated through a crank arrangement, or in some cases it can be arranged so that a standard 8-inch stroke hydraulic cylinder, powered by the tractor hydraulic system, can be used to raise and lower the gate.

Larger spreaders are often available with tandem-wheel arrangements. These provide increased flotation and weight-carrying ability but retain the maneuverability and handling

ease of the two-wheeled, single-axle spreader.

A fine-manure attachment can be added to prevent fine material, such as poultry litter, from falling from the spreader while in transit. This attachment closes the normally open space ahead of the distributor, and forces the material to be delivered to the wide-spread attachment.

Extension-lever kits can be installed on many of the feed and drive-control levers so that these levers can be adjusted for greatest operator convenience regardless of the size of the tractor being used to pull the spreader.

Handy Jack

Since there is usually enough weight on the tongue of a two-wheel spreader to make hook-up to the tractor difficult even when the spreader is empty, a tongue-support jack is a definite convenience. Most of these jacks are crank-operated to adjust the height of the spreader tongue for hook-up. They fold out of the way when the spreader is in use.

Some spreaders are arranged so that they can be converted to use as forage wagons. This conversion usually involves the addition of extra side boards, and a cross conveyor if the wagon is to be used for delivering forage to bunk feeders. In some cases, a front axle and tongue arrangement can be added to the two-wheel spreader to convert it to a four-wheel wagon. This eases the chore of unhooking the wagon from the forage harvester, and attaching a tractor to tow the wagon from the field.

Maintenance and Operation

On the average farm, the manure spreader probably receives less attention than any other major piece of equipment. Since it is a relatively simple machine, it will operate for some time with limited attention. In addition, it isn't a pleasant machine on which to work!

However, just as with any other piece of equipment, good maintenance and proper operation are required for satisfactory service. **Operation:** Although a spreader isn't normally considered a dangerous piece of machinery, certain precautions are necessary for safe operation.

Since a two-wheel spreader imposes relatively heavy loads on the tractor drawbar, check your tractor manual for the correct drawbar setting. In some cases, it may be advisable to use a heavy duty drawbar assembly.

Front-end weights on the tractor may be necessary to retain good stability, especially with smaller tractors or when spreading uphill.

On pto-driven spreaders, be sure that the pto driveshaft is correctly coupled, and that all safety shields are in place. With the current dual standards for pto speeds — 540 and 1000 rpm — the drive members of the spreader must be correctly matched to the tractor pto speed.

With some combinations of spreaders and tractor loaders, it is possible to hit the valve stem of the spreader tire with the loader tractor front wheel. If this happens,

(Continued on page 17)



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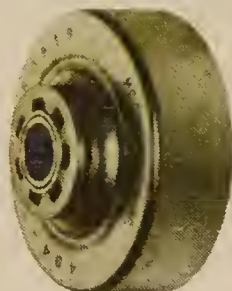
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DEPENDABLE CHAIN SAWS
LEADERSHIP THROUGH CREATIVE ENGINEERING

Manure Spreaders

(Continued from page 16)

the stem of the spreader tire usually breaks, and the tire deflates.

The severe conditions encountered by most spreaders are the result of a number of factors: (1) the metal parts are subject to corrosion by the acids of manure; (2) many spreaders are stored outdoors and thus subjected to weathering by the elements; (3) mechanical loading also imposes extra punishment. Such loading is, of course, a necessity in these times of high-priced labor, but a few simple precautions when loading, transporting and spreading can greatly reduce the extra strain imposed by tractor loading.

Try It Out

After hitching to the spreader, make sure that all parts are working properly by operating it empty for a short distance. This simple precaution may save you from forking a load by hand to repair a broken or damaged part. Before loading in freezing weather be sure that the apron chains are not frozen fast. All string or bale ties that accumulate on the beaters or the wide spread attachment should be removed at frequent intervals.

Start loading at the end of the spreader opposite the beaters — usually the front end (except in the case of front-end-unloading types). Do not attempt to get as large as possible forkfuls; the overload on the spreader is greatly increased by a load that is composed of four or five large chunks of well-packed manure. When loading, raise the tractor loader just enough to provide clearance for the fork to dump in the spreader. Avoid dropping the heavy manure from a height of several feet. Be sure to leave enough room at the rear for the beaters to get into operation before the apron forces material against them.

Gayway farm notes

(Continued from page 14)

edge. We seldom get through a meal without someone being called on some statement. This calls for a quick look at a dictionary, a map, or an encyclopedia. We keep source material within reach of the table so we can settle the question and proceed with the discussion. I guess maps on the walls as well as a world globe were just naturals for us. It seems as though a world map, a United States map, and a state map are necessary tools of our trade — even though we are able to get away to actually travel all too little.

One hobby leads to a considerable study of maps. For years, whenever we have travelled we have carried a few little bottles with us. These are lowered over bridges on a string to get samples of the river water. This has led to quite a collection of bottles of water, but far more important and fun, it has led to some researching on where rivers rise and flow and end. Again, the reference material comes in handy to learn some historical facts about many of these water highways.

American Agriculturist, January, 1965

Be sure that both the apron and the beaters are out of gear before leaving the loading area. If the apron happens to be partially engaged, it attempts to force the load against the beaters during the trip to the spreading area. Then the beater drive mechanism is subjected to additional loads when you start it.

Use a reasonable speed for transport as well as for spreading. Excess speed is dangerous for the driver and harmful to the machine. **Maintenance:** Proper lubrication is the most important single item here. Grease performs two important functions: (1) It prevents metal-to-metal contact between shafts and bearings, and thus reduces wear; (2) cleans dirt and

foreign materials from the bearings. When greasing the spreader, keep pumping grease into each sleeve-type bearing until clean grease appears at both ends.

Because of the manure, mud and dirt which frequently cover the spreader, lubrication is often neglected. However, regular lubrication is essential. Your operator's manual shows how often the various parts need greasing. Be sure to find all the grease fittings, and wipe them clean before applying the grease gun.

Adjustment of chains and linkages should also be included in good maintenance. Tension of the various chains should be checked occasionally and adjusted if necessary. Linkages should be

checked, and any bent links straightened or replaced.

Details of lubrication and maintenance vary with the make of the spreader, so consult your operator's manual for details. It takes good maintenance plus proper operation to get the best results and longest possible life from your spreader.



"Establishing a pecking order, I would imagine."

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LIME CREST

BARN CALCITE

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THE POSITIVE NO

I am well aware that those who are critical of Farm Bureau are using the approach that we are "aginnners" . . . against everything. Unfortunately, this weapon is very effective and bothers me considerably. But I place this means of discrediting Farm Bureau along with many other untruths leveled at us, and accept it

as one of those disagreeable things we have to face when we take a stand on many of the controversial issues.

In defense of being against, and saying NO rather than being for and saying YES, I remember an article written by Norman Vincent Peale in the Reader's Digest. If my memory serves me correctly, his article . . . "The Power of the Positive NO" . . . listed three points. My interpretation of them is as follows:

1. We must learn to say NO to our children. If the truth were known they expect and want us to say NO to them when conditions warrant it, and they respect us for it. Too often we refrain from doing so, thinking that they will dislike

us for it. From my own experience I can verify this NO. We may not use it as often as we should, but I certainly will defend it . . . and in many instances our children have shown their appreciation for it afterwards — and loved us for it.

2. We must learn to say NO in the society in which we live. I think this substantiates my arguments for being against certain things. As good citizens we should oppose certain trends on local, state and national levels if they contradict that which we believe is right and good.

I never will buy the idea that anything is inevitable, and accept it if I think it is wrong. I think Dr. Peale points out in his article that this country was founded by peo-

ple who were against unscrupulous taxation and religious persecution, and who had the courage to say NO and disagree with those who would impose it upon them.

3. We must learn to say NO to ourselves. We should discipline ourselves, as individuals, by saying NO much more often than we do. In short, we know how to conduct ourselves but many times lack the courage to say NO. Hypocrisy is the easy way out, and we set very poor examples by not "practicing what we preach." Morality is based on the proper discipline of the individual by himself, and all too often we fail in this basic concept. — William E. Bensley, Springville, N. Y.

DISAGREES

Your diatribe on "Insecticide Fuss" sounds like a hi-fi disk of the chemical industry which has ridiculed all scientific findings, Rachel Carson, conservationists, wildlife protectors, and the evidences of the cumulative effect of traces of poison.

The blinding effect of dollar signs before the eyes has caused irrevocable losses of U. S. resources in the past. No doubt you agree that mowing down forests didn't result in floods; over-cultivating the plains didn't cause dust storms; pollution of streams with sewage and factory wastes hasn't wiped out fish species; the loss of ground water level is not due to man's pecuniarily-inspired errors; the approaching exhaustion of natural resources in the U. S. is only a concern for future generations.

How in the world did old-time farmers ever get a crop without today's magical killers? Could they have been less lazy then? And why must farm production continually expand, only to fill more warehouses with shameful surpluses? Could modern explosive-growth fertilizers have nourished the nasty bugs to their present tiger-like powers? There were, before DDT, insecticides whose use didn't need defense. Maybe they required more effort by farmers sensitive to nature and conservation.

Yelling "politicians and do-gooders" just to divert criticism has no place in this situation. — R. W. Brigham, Haworth, New Jersey

AGREES

I want to congratulate you on your editorial "Insecticide Fuss". Too few people understand the serious significance of the points you have made.

The Vermont Food Safety Committee is utilizing press, radio and TV to emphasize these same points. Our committee consists of representatives from the Vermont Department of Agriculture, Vermont Department of Health, College of Medicine, College of Agriculture and the Extension Service. We try to anticipate and thus prevent food contamination problems and provide a united front to the public. — Prof. W. D. Bolton, Dept. of Animal Pathology, University of Vermont.

Chapter II: The Scientific Approach to Milk Filtering

How Can Filtration Help Overcome Mastitis?

by Dr. H. E. Kennedy

"I don't see how a milk filter has anything to do with mastitis—after all, mastitis is an udder problem, not a matter of careless milking like dirt and sediment."



Dr. H. E. Kennedy—currently Director of Dairy Products Research for Johnson & Johnson. Received his A.B. from Atlanta Christian College and Ph.D. from North Carolina State. Former Staff Member, Department of Dairy Technology, Ohio State University. Member of American Dairy Science Association, International Association of Milk & Food Sanitarians, National Mastitis Council, American Association of Microbiology, Sigma Xi and Gamma Epsilon Delta.

Chapter I discussed why you should filter milk. Reason No. 3 was the *early detection of mastitis to reduce loss of income*. At first glance, the relationship between filtration and mastitis may not be obvious. That's why the question above comes up in many discussions about filtration and mastitis.

Mastitis is a broad term, usually meant to include conditions of the mammary gland characterized by abnormal milk, inflammation of the gland, and usually, but not always, a diseased state produced by an infectious microorganism. Mastitis is accompanied by a decrease in milk production regardless of whether the condition is of short or long duration—whether acute or chronic—whether clinical or non-clinical.

Mastitis is costly. It is generally agreed that this disease is the most serious health problem the dairyman encounters. Studies at different colleges give varying estimates of its dollar loss ranging from a very conservative \$25 per cow per year and up, taking into account lost milk production, costs of treatments, veterinarians' fees, discarded milk and lost animals. Further, cows with mastitis or loss of milk producing capacity eat as much feed and cost you just as much to keep as your healthy cows, but bring in less milk dollars.

Early mastitis detection is important. Obviously the sooner mastitis is detected in a cow the sooner you can start getting her back to a healthy, normal production condition. The sooner the program is begun the better your chances for reducing your dollar loss. This is the key to any successful mastitis reduction program. We assume that as a careful dairyman you will check each cow at each milking for early signs of mastitis. What tests can you use that are relatively inexpensive, do not interfere with your busy schedule, do not require special lab tests, and yet are reasonably accurate? You may use the strip cup, but recent studies have shown that it misses far more mastitis than it detects.

There are other tests, such as the CMT, catalase test and leucocyte counts, that if properly performed, provide a high degree of reliability. However, they are time consuming, and the latter two require laboratory facilities and trained technicians to carry them out. Also, none of these tests can be performed with sufficient frequency to maintain an "early detection" check on a herd. As you know, a case of mastitis can develop overnight, and only detection measures that can be carried out daily or with much greater frequency than is practical with the CMT, leucocyte count or catalase test can result in providing the full advantage of "early detection."

Here's how filtration can help detect mastitis. Some abnormal changes in milk caused by mastitis, and which do not pass through a milk filter, are garget flakes and clots, bloody particles and stringiness. Also, recent re-

search has shown that a yellow color on the filter is associated with other indications of mastitis. Mastitis detection by filtration offers the advantages of the strip cup: it is a barn test which does not require much time, it can be performed by the milker, and it has a high degree of reliability.

The accuracy of the filter test as a measure of mastitis depends upon how it is used. Here is what you should do. Regardless of how you now filter, inspect your filter material after each milking, or each time you change it, and watch for garget, yellow color or other abnormalities. If you are a can milker, you can spot the evidence on the filter disk as you strain the milk. If you have a pipeline, you may inspect the sock or the filter at the bulk tank. Best of all, use an in-line filter that permits you to inspect the results of filtering the milk from each cow. When you see the above evidences of abnormal milk, start investigating which cow is suspect. This is simple with the in-line filter. Then make a careful check on the suspect cows, using the special tests mentioned above or by consulting your veterinarian.

Your veterinarian should supervise your mastitis treatment program. Early attention becomes just as important as early detection if you are to avoid dollar losses. The careful dairyman will employ early corrective measures through his veterinarian or otherwise, to avoid the serious financial loss suffered when the infection progresses or spreads. Remember—different forms of mastitis respond better to different medications, and your veterinarian is best equipped to advise you in this respect.

Johnson & Johnson has a new In-Line Filter Holder to aid in mastitis detection. Designed by the Milk Filter Research Laboratory, it is called the RAPID-FLO® Filter Holder, and is used with 4 1/8" VACULINE® Filter Disks.

The RAPID-FLO® Filter Holder, made with two unbreakable, transparent plastic shells, is adapted to fit between your milking machine and the pipeline or direct vacuum can. With a normal healthy herd, 6 to 10 cows can be milked through one of the VACULINE® Disks. If mastitis is present, the evidences become clearly visible, first through the transparent holder and then more accurately as the filter holder is quickly taken apart for inspection. Use of the filter holder has this advantage—the specific cows with mastitis can be quickly identified, whereas with a pipeline all you will find is the indication that *one or several* cows are producing abnormal milk. This serves as a warning signal, but it doesn't help identify the infected cows.

Space doesn't permit describing the RAPID-FLO® Filter Holder in greater detail, but you can see one and get further information from your supplier of milk filters. If he doesn't have the story on this new device yet, please write to us, giving his name and we'll see that both you and he get it right away. Send your request to Dairy Department, Johnson & Johnson, 4949 West 65th Street, Chicago, Illinois 60638.

From the above, you can see that filtration does have a great deal to do with mastitis. The filter disk can be just as essential and successful in mastitis control as it has been for decades in sediment control. Checking mastitis by filtration now becomes another step towards helping you achieve better managed milking and better milking profits.

(Ed. Note: If you would like extra reprints of this Chapter or Chapter I, "Why Should I Filter My Milk," write to the Dairy Department 4014 at Johnson & Johnson, 4949 West 65th Street, Chicago, Illinois 60638.)

TOWN — DEALER
 ADAMS, Wilson Equipment Co.
 ANGELICA, Harold Jorgeson
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 ATTICA, George Burnison
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 ARCADE, M. C. & C. M. Drake
 ALTAMONT, Howard L. Gage Inc.
 AUBURN, Main & Pickney
 ANDES, Liddle Bros.
 AMITYVILLE, Purdy Lawnmower
 BINGHAMTON, Wakeman's Auto Electric
 BUFFALO, West Seneca Tool Rental
 BURKE, Cowans Esso Service
 BARNEVELD, Bakers Sales & Service
 BRASHER FALLS, Boot's Saw Sales & Repair
 BAYSHORE, Arthur Rauff
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 BRANT, Thomas Chlavetta
 CAMDEN, Clyde Wesseldine
 CANANDAIGUA, Don Howard
 CAZENOVIA, Waterbury & Coe
 CONESUS, Gordon T. Alger
 COHOCTON, Edmund Appliance & Hardware
 CHAMPLAIN, Raymond Bedard
 CATSKILL, Bergers Sales & Service
 CLINTON CORNERS, Bowman Sales & Service
 CORTLAND, Cain Tractor & Implement
 CLINTON, Clinton Farm Supply
 CORINTH, Main Motors, Inc.
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 DEFREESTVILLE, Master Equipment
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 DE RUYTER, H. W. Cook Farm Service
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 EAST MEADOW, United Rent Alls
 FRANKLINVILLE, Library Garage
 FABIUS, Fabius Hardware
 FALCONER, Schutts Chain Saw & Mower
 FORESTBERG, Theimers Garage
 FORT JOHNSTON, Jim's Garage
 FREEPORT, Freeport Equipment Co.
 GRANVILLE, Scotts Tractor & Implement
 GLEN COVE, Larry's Mid Island
 GREENVILLE, Greenville Farm Supply
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 HANKINS, Sipple Service
 HAVERSTRAW, Shaw-Jobson
 HOBART, E. T. Van Buren
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 HUDSON, A. J. Grabs Sons
 HUNTINGTON STATION, Huntington Grinding
 ITHACA, A. R. Davis
 INWOOD, Long Island Lawn Mower
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 KINGSTON, Power Mower Repair
 KNOWLESVILLE, Knowlesville G.L.F. Store
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 LIVONIA CENTER, Day Tractor Implement Co.
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 MIDDLETOWN, Lou's Repair Shop
 MILFORD, Harrison Hardware
 MILLER PLACE, Miller Place Service Station
 MILLERTON, Scoland Farm Machinery
 MINEOLA, Liffco, Inc.
 MONROE, Mikes Lawn Mower Shop
 MOORE'S FORK, E. R. De Coste
 MORRISONVILLE, Bernard Barber
 NEW BERLIN, Pope Bros. Garage
 NEWARK, Fairville Garage
 NICHOLS, J. D. Robertson & Son
 NINEVEH, Edward Oliver
 NORTH BELIMORE, Langes Hardware & Paint
 NORTH LAWRENCE, J. A. Wilber & Sons
 NORTHPORT, Vernon Machine
 NORWICH, Kosowsky Hardware
 ONEIDA, Oneida Milling Co.
 OVID, Ovid Small Engine Clinic
 PATCHOGUE, Carl's Lawn Mower Shop
 PAWLING, Utters Bros.
 PEARL RIVER, Pearl River Cycle
 PEEKSKILL, Peekskill Lawn Mower
 PENN YAN, Hayes Exchange Store
 PINE BUSH, McDoles Service Station
 PINE ISLAND, Roy Bros.
 PLEASANTVILLE, C. V. Pierce
 PORT JERVIS, Rowe-Hendrickson
 PORT WASHINGTON, Precisioneer, Inc.
 POUGHKEEPSIE, Mike's Lawn Mower
 FORT PLAIN, Hallsville Farm Supply
 REXFORD, Rexford Small Engine

TOWN — DEALER
 RICHFIELD SPRINGS, Beadle & Co.
 RIVERHEAD, Rolie Bros.
 ROCHESTER, Corey Truck Body & Equip.
 ROCHESTER, United Rentals
 ROSEDALE, A & F Tool Rental
 SALISBURY, Matthew's Garage
 SCHENECTADY, Thruway Engine Clinic
 SCHUYLERVILLE, Nelson S. Pratt
 SHARON SPRINGS, Edgar Handy Garage
 SIDNEY CENTER, Jess F. Howes
 SOUTH GLENS FALLS, Route No. (9)
 Motor Sales
 SPECULATOR, Tracey Saw Sales
 SPENCER, Simcoe's Garage
 SPRING VALLEY, Clarkstown Equipment Co.
 SPRINGVILLE, Henry Kobbler
 STATEN ISLAND, Trimawlawn Equip. Co.
 STONE RIDGE, George Von Barga
 SYRACUSE, Syracuse Farm Supply
 THIENDARA, Bob's Gulf & T. V. Service
 THERESA, Pete Giltz Implement Co.
 TUPPER LAKE, Ryan's Marine
 TRUMANSBURG, Maurice Bowers
 VAILS GATE, Vails Gate Rental Mart
 VERMONTVILLE, Mac's Service
 VESTAL, Vestal Tool Rental
 WALTON, Russells Sales & Service
 WATERLOO, Finger Lakes Equipmnt Co.
 WALWORTH, Duells Garden Store
 WATKINS GEN, Glen City Garage
 WEEDSPORT, Blumer Supply
 WESTBURY, Contractors Supply Corp.
 WELLSVILLE, Chlavetta Bros., Inc.
 WEST LEYDEN, Stanley Freeman
 WESTVILLE, Wilson Farm Service
 WHITNEY POINT, George White
 WORCESTER, Edward Johnston

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New York State Grange Resolutions

Grange Policy — Over 100 resolutions which will form the policy of the 83,000 Grange members in New York State were approved at the annual meeting. These ranged through taxation, dairying, education, agriculture, legislation, public welfare, and many others.

In the dairy field, the group came out strongly for the two-price plan for milk; asked that dairymen be able to vote under the marketing order without losing the order if they reject a proposed amendment; favored continuance of the present arrangement of bulk tank hauling of producers' milk at handlers' cost; called for a super pool. More vocational education was asked for young people; an open season on raccoons was favored until the raccoon population has been sufficiently decreased to eliminate heavy crop damage.

Unalterable opposition was voiced to any changes in the Alcoholic Beverage Control laws which would ease restrictions imposed on those who deal in or serve alcoholic beverages; legislation which would mandate a four-year term for supervisors and highway superintendents was opposed; Grangers would require candidates for public office in the state to be qualified to vote in the state.

Under public affairs, the transfer of the Barge Canal to the federal government was opposed; favored were more stringent controls on obscene books, etc.; supported was a legislative program whereby growers can marshall adequate help from able-bodied unemployed on welfare for the fruit and vegetable harvest.

Officers — Bert S. Morse, Marathon, N. Y. was elected to a three-year term on the executive committee. Other members are: Edmund H. Marvin, Sr., Macedon, chairman; Leonard Fuller, Edwards. State Master Russell S. Curtis, Cazenovia; Overseer Robert S. Drake, Woodhull; and Secretary Morris J. Halladay, Groton, are ex-officio.

American Agriculturist, January, 1965

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the
POWERLITE

The lightweight with the heavyweight bite

- 12-lb. engine weight
- Roller bearing engine design
- Roller nose guide bar
- Rubber comfort grip

The amazing PowerLite PL-4 is an easy-to-handle lightweight package of woodcutting power. The lively 3.6 cubic inch engine has full roller bearing design. Roller bearings increase power and provide smooth performance in any position—even upside down. An

oversized air filter and muffler improve engine breathing to give a supercharged performance. The results—you'll zip through logs in seconds with your choice of a 15", 19", or 23" power boosting roller nose guide bar. What's more, the roller nose and a three-piece tool kit are standard at no extra cost. From the comfort grip on the rear to the tip of the bar, you'll find many other professional features. See the rugged, lively new PL-4 at your dealer's today.

Remington

OUTCUTS, OUTLASTS 'EM ALL  Remington Arms Company, Inc., Park Forest, Illinois



"We find Power Shift is of great advantage on row ends when you want to speed up. You use only one lever and you don't even have to clutch to change gears."



"I wanted comfort to go along with good tractor performance; this John Deere 3020 has it."

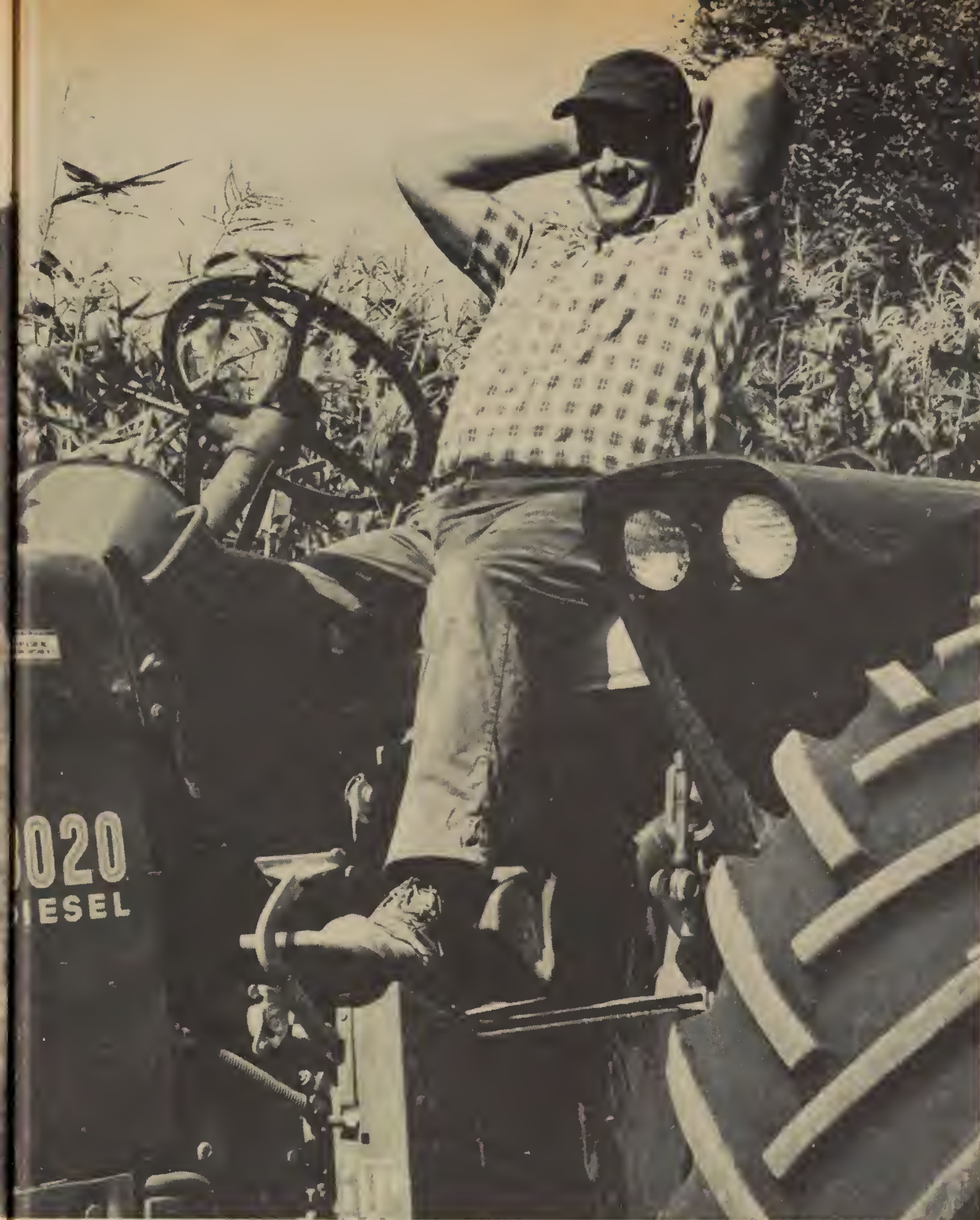
A New York farmer reports:

Talk about Yankee ingenuity and you're talking about Jay Silsby, Gasport. He about splits his 350 acres between fruit trees (apples and cherries) and the main ingredient for a drive-in restaurant: beef. Jay raises his own steaks, beefburgers, loins, etc., for the Canary Snack Bar in which the Silsbys are part-owners. If you're ever on Highway 31 in the Gasport area, stop in and taste the fruits of Jay's farming with his Power Shift "3020" . . .

"This "3020" is the first John Deere Tractor I've owned. Sitting on it is just like sitting in your living room watching TV. There's no comparison between it and others I've owned. I wanted comfort to go along with good performance and this "3020" certainly has it.

"It has plenty of power for our needs . . . and a seat that's out of this world in my book. You can regulate it so the controls are all right there at your touch . . . and move it back to stand. It's a masterpiece of comfort. I got to the place with back trouble where I either had to quit farming or change tractors. This "3020" was the answer to my problem . . . haven't had a bit of trouble since I bought it.

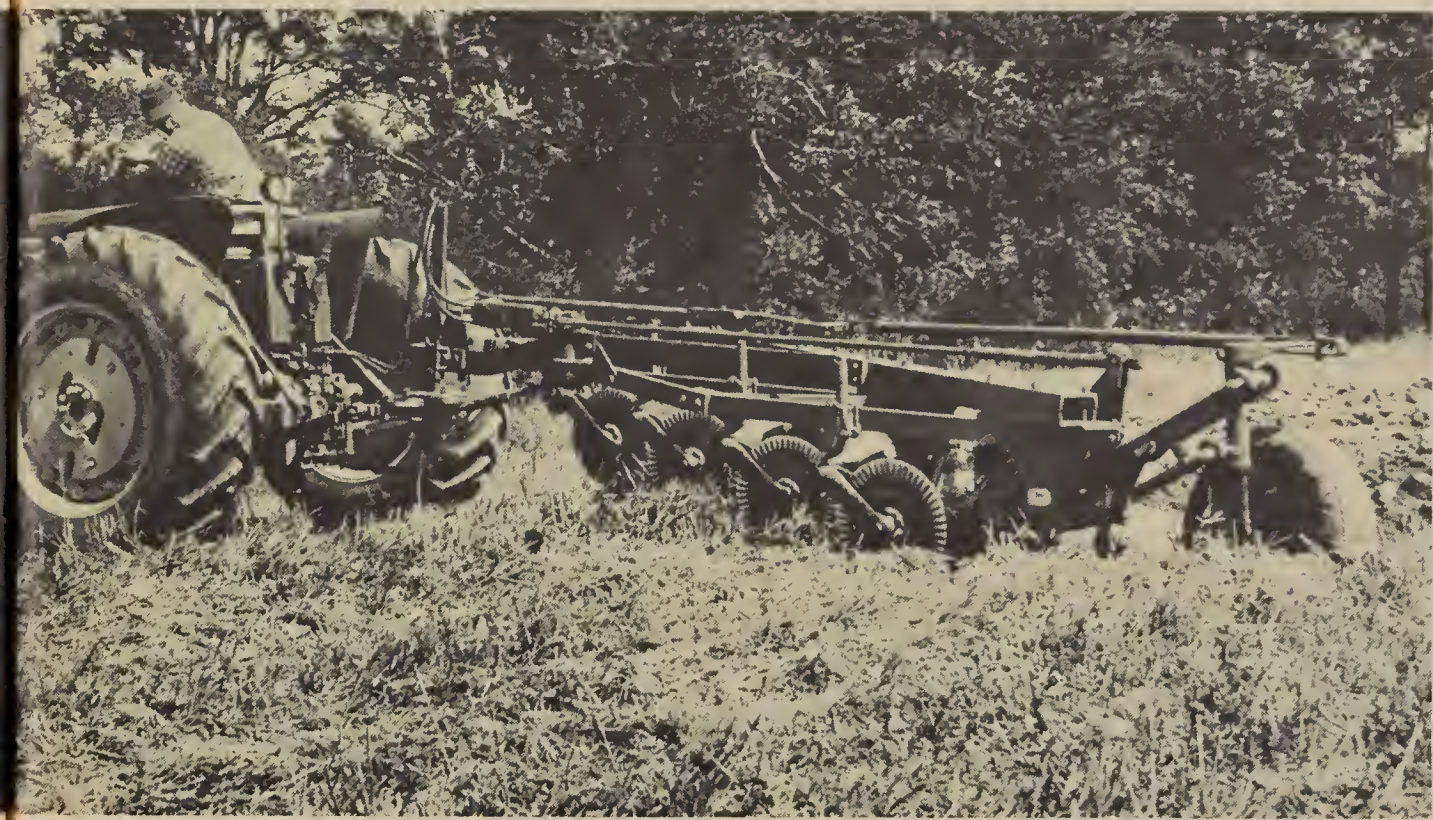
"Power Shift is of great advantage on row ends when you want to speed up, on grades when you run into hard pulling, and plowing when you hit tough spots. In each case, you just drop 'er back or move 'er up a gear without stopping. You use only one lever. You don't even have to clutch to change gears, so there's no time lost.



"Just like sitting in our living room watching TV."



"The '3020' has lots of weight and good balance."



"We put the 4-16's down 8 to 9 inches. On the average, we plow about 2 acres an hour."



"It's no trouble at all for my son, Sidney, to drive."

"I got Power Shift because I wanted to keep up-to-date. You sure save time with it. This "3020" is cutting my hours in the field; it's actually increasing my profit because we get a lot more done in a lot less time. And Power Shift will mean greater trade-in value some day. The ground speeds are all well spaced. There are no gaps."

Jay Silsby has a practical slant on farming . . . what good is a fast-moving tractor if it so mistreats a farmer that he can't keep moving with it very long? Jay switched tractor brands to get the "3020" because it treated him right . . . right amount of power, right amount of comfort, right kind of features. How right is a 65 h.p.* "3020" or 91 h.p.* "4020" for you? Best way to find out is to try one on your farm for a day, using your John Deere dealer's demonstrator. You'll also find his Credit Plan treats your budget as kindly as the tractor treats you. Payments are tailored to your income.

**Diesel model*

JOHN DEERE

Moline, Illinois



OPERATION AQUALIFT

by Gordon Conklin

IT LOOKS LIKE a long, tough winter on the waterfront . . . not the one down by the docks but the one on dairy farms across the Northeast. Although worse in some areas than others, it's generally dry, man, dry! Having to buy water for 50 cows at \$10 per 1,000 gallon load is a discouraging proposition to say the least.

States, counties, municipalities, and public agencies such as the Extension Service and Civil

Defense, are all working on the job of keeping water moving to meet essential needs in the region. Wondering about what the individual can do, I asked agricultural engineer Carl Winkelblech at Cornell for suggestions.

By the way, he speaks with experience and fervor about the problem, because the well at his own home only produces 10 to 12 gallons per day . . . not nearly enough for normal family use.

Various combinations of equipment and structures can be improvised for on-farm storage and handling of water when it is delivered from the transport tanker:

1. Dugout pits or reservoirs with a plastic lining are low in cost and can be readily adapted to many farm situations. Black plastic sheets can be purchased in sizes up to 40 feet by 100 feet. Four-mil thickness costs less than two cents per square foot. Six-mil plastic is more durable, but if care is exercised in backing the plastic with a relatively smooth surface, the thinner material should outlast the drought.

Dugout pits should be built ad-

jacent to a firm driveway to facilitate delivery of water. They should be near the point of water use to minimize pumping costs; they should be at least 6 feet deep to minimize ice formation; they should be large enough to hold a 2 or 3 day supply of water below a 2-foot thickness of ice; separate storage pits should be built for potable and livestock water.

Each cubic foot of storage will hold about 7½ gallons of water. Where the topography is sloping, dugout pits may be built about 20 feet above the drinking cup level in the cow barn. This higher elevation should provide enough pressure to operate drinking cup valves without installing a pump.

If water from open pits or other contaminated sources is connected to permanent water lines, these lines should be broken or otherwise valved to prevent any possibility of contaminating the well and those parts of the water system that normally handle pure water.

2. Large plastic film sheets can also be used to line structures which might otherwise leak or contaminate the water. In this group are old cisterns and dug wells; empty silos; heavy duty forage wagons and grain bins; and pits or reservoirs made of soil. Remember that water weighs roughly the same as wheat and 3 times more than forage. The depth of water stored in above-ground structures should be gauged accordingly.

3. Avoid used storage tanks that previously contained harmful or objectionable liquids unless the contaminant can be removed. Water stored in a used fuel tank, for example, will have an oily taste, odor and surface film, even though the tank has been thoroughly steam-cleaned. Leaded gasoline tanks should not be used for storing any drinking water for livestock or human use.

4. Asphalt-coated steel septic tanks may be used for storing livestock water. Maple sap tanks, washing vats, or other containers used in the food processing industry are satisfactory water storages for both livestock and humans when thoroughly cleaned.

Keep livestock water in separate containers from that used for household and milkroom; this will reduce chlorination costs. It's advised that livestock water not be chlorinated because cattle may object to the taste and not drink enough to maintain normal production. Water for human use can be made safe by boiling as well as by chlorination.

5. Dumping of water into unlined dry wells as a means of storage is generally inadvisable. In addition to the risk of contaminating underground rock strata, the volume of recovery is likely to be low because of leakage.

"Stimulating" Wells

During drought periods the ground water table falls. Chances of obtaining more water appear greater by deepening shallow wells than by deepening wells that are already 200 feet or more below

(Continued on page 25)



UNLOCK THE DOOR TO HIGHER PROFIT CROPS

KEY No. 1

Better Service

The Hoffman Seed Man is the key that unlocks a broad program of Hoffman service that ranges all the way from helping you plan for higher yields, right up to seed delivery. Chances are, there's a Hoffman Seed Man located close to you. He knows climate and soil conditions in your locality . . . and will be glad to help you select exactly the right variety of Hoffman Farm Seeds and Funk's G-Hybrid Corn.

KEY No. 2

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Each variety of Hoffman seeds has been picked because of its ability to give high yields . . . each has been thoroughly farm tested. Research and testing are important in the Hoffman quality program. But more than that—we take extra care all along the line, from selecting stock seed right through to laboratory checking, cleaning, bagging and storing—in fact, use dozens of safeguards to keep quality high.

KEY No. 3

Bigger Yields

There's no better way to unlock the door to higher profit crops than with the bigger yields of Hoffman Farm Seeds and Funk's G-Hybrid Corn. Whether you measure this "plus" yield in bushels, bales, tons or pasture growth, they all add up to one thing—higher profit crops. For over 60 years, farmers all over Pennsylvania and adjoining states have depended upon Hoffman Seeds for more abundant, better paying crops. Put this profit-making ability to work for you next season.

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YEAR OF SHARP CONTRASTS

by Amos Kirby
New Jersey Editor

The year of 1964 is likely to be recorded in history as one of sharp contrasts. These range through the weather, the drought, and the suggestion that farmers get into the food retailing business through the purchase of the world's largest chain store, the A & P. More new ideas have been germinated lately than one is likely to find crabgrass seedlings after a soaking rain in late April!

Weather — We are informed that if the moisture shortage of almost 15 inches for 1964 is to be made up by planting time in the spring of 1965, it will require 150 inches of snow. Arley Hovland, assistant director of the Extension Service, after consultation with the agricultural agents comes up with some dry but very important facts.

According to Mr. Hovland's study — and that takes into consideration the records kept by the New Jersey Crop Reporting Service and the College Weather Forecasting Service — the drought of 1964 actually started back in mid-1961. Weather records for 42 months show that North Jersey is more than 35 inches short of normal precipitation, while Central and South Jersey are a little better off... only 18 inches shy.

The College has also come up with some figures on what it actually costs to pump water on a growing crop, a question that has often been asked. Hovland states that it costs from \$13 to \$15 an acre for each of three or four waterings, an added cost of over \$50 per acre just to keep the crops going through the season.

Supply — Those with deep wells report that they still have seen no shortage in their supply. What concerns almost everyone is, "What about next year?"

One of the newest developments is at the duPont Company's big dye plant in Salem County. Here has been dug a 500-foot well, into which they plan to pump treated water from a nearby stream back into the ground to meet their normal seasonal requirements. They have been told by water experts that they will be able to retrieve up to 85 percent of the water that they store underground.

The A & P Deal

The idea of farmers buying the huge A & P chain is a story that has caught the imagination of the public, and has actually begun to take root. It was discussed at the conference of the New Jersey Agricultural Marketing Association.

The idea originated in Ohio. It is now being identified with the American Farm Bureau Federation, and has been considered at both the Pennsylvania and New Jersey Farm Bureau annual meetings... also at the meeting of the American Farm Bureau Federation in Philadelphia.

American Agriculturist, January, 1965

Background — Behind the story is the attempt of the American Farm Bureau Federation, through its state agricultural marketing associations, to secure sensible prices for crops grown under contract. Growers are not happy over the prices they are offered on contract crops. In the spring of 1964, processors reduced the prices on asparagus; left unchanged prices on

tomatoes; and now the H. J. Heinz Co. has come out with prices for 1965 the same as 1964.

Here and There

I attended the annual meeting of the Interstate Milk Producers Cooperative in Philadelphia on behalf of American Agriculturist. The good news was to the effect that there will be an increase in the price of milk starting with January 1, 1965.

There was some sentiment for at least one cent per quart or its equivalent, but this met with opposition. An influx of supplies from competing areas could upset supply and demand.

Apportionment — Overshadowing everything else is the matter of re-

apportionment in the Assembly and Senate. The Farm Bureau position is that reapportionment should be delayed until there is a decision from the U. S. Supreme Court.

The Legislature has started one type of reapportionment that would provide what has been called "a weighted vote."

New Early Tomato

An extremely early tomato, often ripening big red tomatoes by July 4th, has been developed at the Jung Farms in Wisconsin. You can obtain a trial packet of this tomato by sending 10c to the Jung Seed Co., Box 80, Randolph, Wis. They will not only send you this tomato seed but also a packet of the glorious Giant Hybrid Zinnias and a copy of their 58th catalog, America's most colorful 1965 seed catalog. (Adv.)



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Make	Model	Std. H.P.	M&W H.P.	Make	Model	Std. H.P.	M&W H.P.
Allis Chalmers...	WD	34.6	43.2	Farmall.....	560 Gas	63.0	72.5
Allis Chalmers...	WD-45	43.2	49.7	John Deere.....	60	40.2	44.8
Case.....	DC	37.3	52.5	John Deere.....	720, 730D	56.6	62.2
Case.....	410, 411	53.2	59.1	John Deere.....	4010D	84.0	93.5
Ferguson.....	30	29.3	33.5	Massey Harris...	44-4	45.6	54.9
Ford.....	NAA, 600, 700	31.1	36.3	Massey Ferguson	65	46.0	50.2
Ford.....	8N, 9N	25.7	28.6	Minn. Moline....	U, UB	41.5	52.1
Farmall.....	M, W-6	36.7	53.8	Oliver.....	77	37.2	47.0
Farmall.....	Su.M, NTA	46.3	55.2	Oliver.....	88D	43.5	52.6

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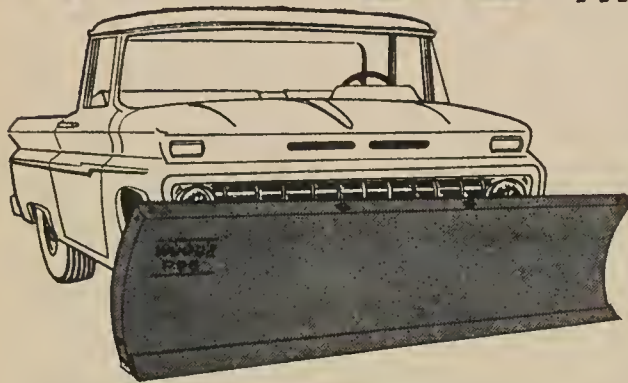
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ADAPTABLE TO FARM & INDUSTRIAL END LOADERS. Easy to mount, special brackets attach to frame so plow mounts on standard bucket-end-loader arms, single or dual cylinder equipped.

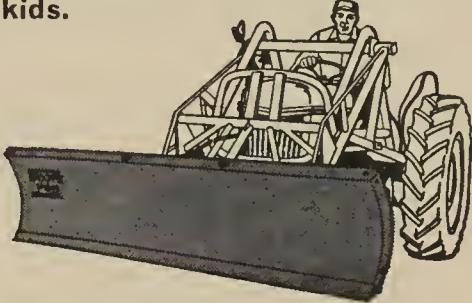
Model P78 6-1/2' blade. Model P84 7' blade. Model P96 8' blade

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Reversible curved blade, beveled on both edges . . . plow angles left or right . . . plow floats on adjustable skids.



Ed Davie uses double tires for greater flotation and less compaction.

PLOW ON THE LEVEL

Ever wish you could get that rear tractor wheel out of the furrow when plowing? Well, J. Edward Davie of Geneva, New York, not only wished, but he did!

He plowed close to 350 acres with his homemade plow hitch last spring and likes it fine. The tractor he's using is an IH 806 (95 horses under the hood). Ed reports he previously used half a ton of front-end weights when using his five-bottom plow with the regular hitch . . . now he uses only 300 pounds of extra weight on the front end.

"A five to six ton tractor really packs down the ground, especially if one wheel is hammering the bottom of that furrow (which is usually wet) where it never gets loosened up with tillage later. I'm concerned with compaction; that's why I use double tires on the tractor for plowing. Another advantage of this hitch, though, is easier handling . . . plowing with this rig is as simple as dragging all day."

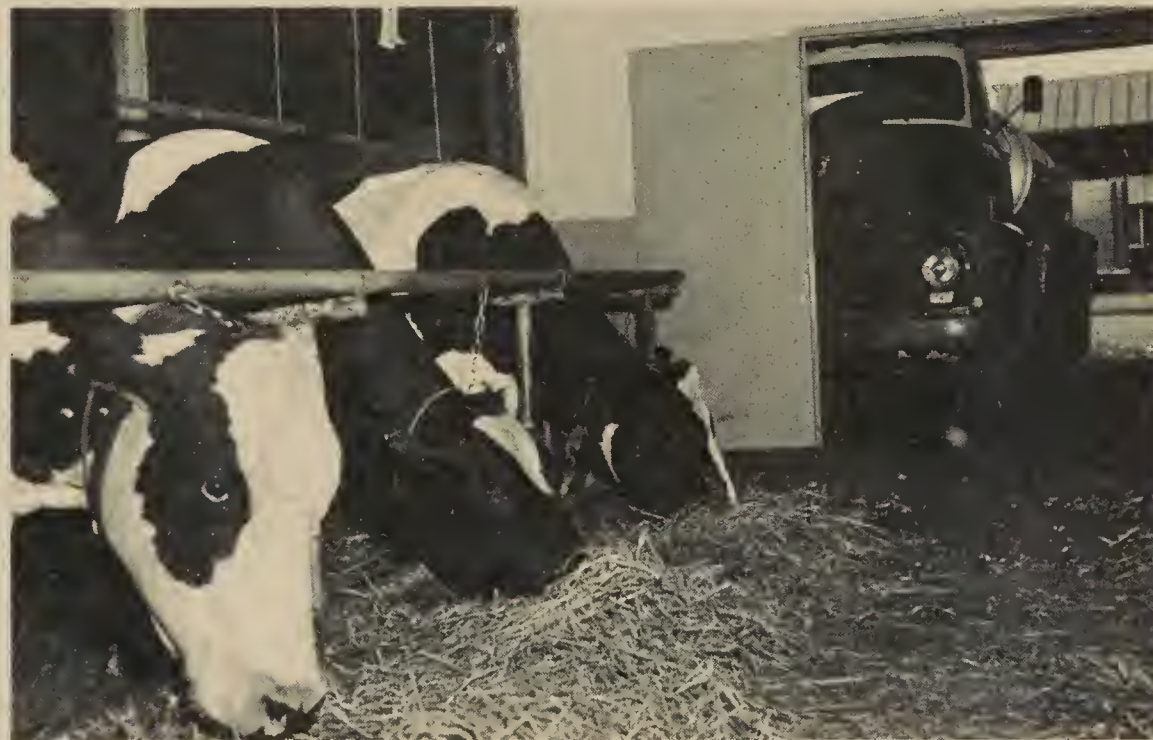
Ed has a fully-equipped farm shop and built up his hitch himself. He figured a little, built something, tried it out, and changed it a number of times. Finally he had a setup that worked well, but he plans to modify it just a bit more for greater convenience and strength.

Using a semi-mounted steerable five-bottom plow, he put his hitch 14 inches ahead of and 16 inches to the side of where it would normally be. He thinks a six-bottom plow would work even better.

This winter he is going to work on a similar modification for a three-bottom plow, but admits it just may be too narrow. He likes so well the idea of keeping all four tractor wheels out of the plowed ground that he is going to try, though.



Ed built this special hitch himself through a process of trial and error.



FROM COW TO TRUCK

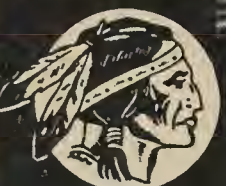
Milk from Roger Becker's 197 cows at Cobleskill, New York, goes directly by pipeline to a quick-cooling device that almost instantly drops its temperature to 37 degrees Fahrenheit. Then it flows to a bulk truck for eventual transport to his bottling plant.

Never exposed to the air, the milk has so few bacteria that testing bacteriologists can't even read a plate count. Udders are carefully washed before milking, and teats are dipped in a long-lasting sanitizing solution after milking.

The Becker herd, for the year ending April, 1964, has a DHIA average on 153.3 cows of 14,143 pounds of milk, 475 of fat.

American Agriculturist, January, 1965

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Aqualift

(Continued from page 22)

the surface. With increasing depth, rock strata generally become more dense; there are fewer voids to hold and convey water. The risk of finding sulfur, salt, other objectionable minerals, and small natural gas pockets increases with depth. In contrast, deep gravel pockets generally hold large quantities of water; deepening wells in gravel valleys is usually advisable.

The smallest domestic water pumps available have a pumping capacity which may be ten times faster than the rate at which water flows into the present well. Too rapid withdrawal of water causes the pump to lose prime. Several things can be done:

1. Restrict the pumping rate. Some jet pumps have an internal adjusting screw; in other cases the hand valve between the pump and the air tank can be partially closed. Through repeated trials the pumping rate can sometimes be restricted to equal the recharge rate of the well.

2. Install water level control electrodes in the well. This commercially available device is connected in series with the pressure control switch. Two electrodes, one at high water and another above the intake screen, control the pump operation and prevent loss of prime.

3. Lengthen the pump intake pipe. Judgment and a full knowledge of the well is required before undertaking a change; the intake may already be near the bottom of the well. Sand or sediment will interfere with pump performance if the intake is too close to the bottom.

New veins can sometimes be opened up by an explosive charge at the bottom of the well; chances of success are greater in limestone and shales than in sandstone or granite. This should be done by someone experienced in handling explosives.

Another approach that has had some success is that of drawing a vacuum on the well casing, but this will not work on a completely dry well. A vacuum pump is attached to the well vent, having the same effect as sucking soda pop through a straw. The casing and well seal must be air-tight.

Remember, though, that water quality may change, and there may be an increase in turbidity, sulfur or other minerals. Deep well jet pumps will usually operate at lower efficiency against a vacuum, but shallow well pumps will not. Commercial equipment, including an automatic vacuum control switch, is available to do this job.

"Stimulating" Springs

Springs that have gone dry or have a diminished flow due to a prolonged drought can sometimes be revived. Here are some suggestions:

1. Make sure the present spring box is tight . . . that water is not seeping out unnoticed below the soil surface. Check for subsurface

leaks by digging one or more test holes on the lower side of the box. Holes should be at least one foot deeper than the present spring box.

A good spring box should have a reservoir capacity equal to the total daily needs. Each cubic foot of space between high water level and the draw-off pipe will hold 7½ gallons of water.

2. Sometimes during dry periods water can be found at a greater-than-normal depth in the vein. Check this possibility by excavating to a greater depth within the present spring box. If free water appears in the bottom of the hole, it should be pumped to determine the approximate flow. On the basis of this flow, decide whether or not to deepen or rebuild the present box.

3. Springs frequently outcrop at the base of a steep change in grade. A "seepage line" may be apparent on one or both sides of the present spring box. It is sometimes possible to intercept additional seepage and lead it through a tile line to the spring box. Check the feasibility of this approach by digging test holes at intervals along the seep line.

4. Collector tile lines should be about 3 feet below the ground surface and should have a continuous fall of about 3 inches per hundred feet to the high water level in the collecting box. A submerged outlet is likely to reduce total flow and increase the possibility of leakage outside the box. To obtain sufficient fall and cover for tile, it may be necessary to construct a new spring box at a lower elevation on the slope.

5. When the tile trench has been excavated, a 4-foot width of 4 mil polyethylene plastic can be installed as a curtain wall on the bottom and downhill side of the trench. Tile should be placed on top of the plastic film, and the trench backfilled with about 2 feet of clean sand or gravel. The remaining portion of the plastic film should then be folded over the gravel backfill and the upper portion of the trench filled with the heaviest soil obtainable in the vicinity. These construction details contribute to the efficiency of the system and to the purity of the water.



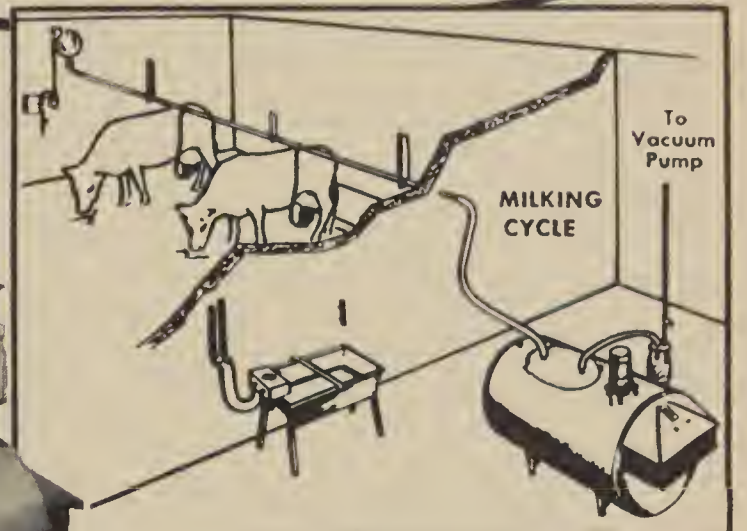
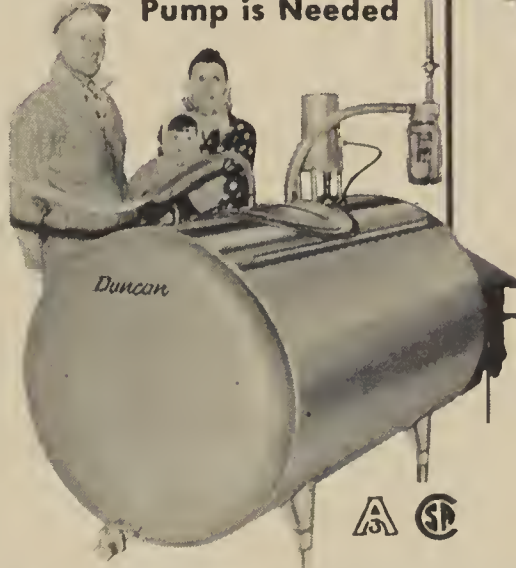
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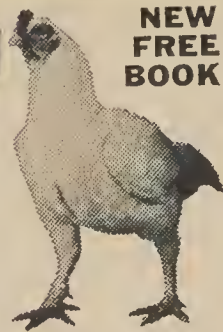
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American Agriculturist and the Rural New Yorker (Subscription Dept.) 10 No. Cherry St., Poughkeepsie, N. Y.

"Doc" Mettler Says:

AVOID SHIPPING FEVER

IT IS SAID that as the January days get longer, the weather gets stronger. Cold, clear weather with the ground snow-covered seems to be good for cattle here in the Northeast, but look out for the January thaw or any sudden change! Each year we see more and more evidence of the fact that change, causing stress on animals, is as much a factor in disease as bacteria and virus.

One disease that veterinarians and cow men have for years associated with change is Hemorrhagic Septicemia, better known as "shipping fever." Despite modern methods and education, shipping fever seems to be as prevalent today as it was thirty years ago, when as a 4-H boy I first experienced its effects on unprotected cattle.

To the research man there is no single specific bacteria or virus causing shipping fever. There are as many variations of shipping fever as there are of the common cold in humans; it can vary from a slight cough to deadly pneumonia and diarrhea.

Apparently the organism . . . or organisms . . . that cause shipping fever are always with us, not causing trouble until some stress caused by shipping, storm, or sudden change takes place and lowers an animal's resistance so the organisms become more virulent. There are, of course, diseases such as Infectious Bovine Rhinotracheitis (IBR), virus diarrhea (VD), and Leptospirosis, caused by specific viruses or bacteria that resemble shipping fever and are often confused with it. Animals in poorly ventilated stables can develop shipping fever-type symptoms that will not respond to antibiotics, but will respond to fresh air.

The typical break of shipping fever starts in a herd of previously healthy cattle a week or ten days after new animals have been introduced. The new animals don't have to be visibly sick themselves to spread the disease. Or the new animals can come down with the disease any time up to two weeks after being introduced into the herd, and then a week later the rest of the herd starts to come down with it.

Some Symptoms

High fever, from 104 to 107 degrees, is usually the most constant symptom of shipping fever. The next most common symptom is a "rocking" type of breathing. Stand and observe a line of cows; the ones whose pinbones go back and forth two to four inches as they breathe are the ones to check. The other symptoms are not always constant . . . coughing, open-mouth breathing, lack of appetite (though in the early stages animals often eat), red or runny eyes and runny nose, and diarrhea.

The disease can also start in a barn where no new animals have

been introduced. It can be carried in on visitors' feet or on objects such as a halter or nose lead. It can start when animals' resistance has been lowered by change and stress such as putting in a new ventilating system, the failure of a ventilating system, or something of that nature.

Shipping fever may affect only animals of a certain age group, or on occasion it will spread through the adult cattle and not affect the calves or yearlings for a week or two, then suddenly spread to them. A dry cow may go through a break of shipping fever with no ill effects, only to become seriously ill within twelve hours after calving. In such cases, the calves usually die in a day or two after birth.

Ventilation Influence

Shipping fever seldom affects animals in loose housing or well-ventilated shed-type buildings; the exception to this is in feeder cattle. The disease in this class of livestock is difficult to treat. In most cases the more draft-free ventilation one can obtain the less severe the disease will be, and the fewer cases in the herd.

Immunization against shipping fever can be obtained by the use of a mixed bacterin used before exposure. Different formulae of bacterins are used in different parts of the country; your local veterinarian knows what is best for your area. In some areas it is routine practice to inoculate adult cattle every fall with mixed bacterin to try to improve resistance to the shipping fever cough and diarrhea. There is no proof that it does any good, yet the year it is not done these herds will have trouble.

Your own veterinarian can advise you best as to whether it would be of value to inoculate against shipping fever. If he has found it of value, he will have on hand a formula that is best for your area.

If you plan to add cattle to your herd, consult your veterinarian as to whether he advises inoculating. If he does, he will suggest doing it at least two weeks before the new cattle are added. The new cattle should be done before they are moved into your barn. I repeat, the new cattle don't have to be sick to carry shipping fever to your barn.

Using a dirty cattle truck can be the easiest way to spread shipping fever. Most regular cattle truckers today are conscientious and careful in cleaning and disinfecting their trucks before hauling non-slaughter cattle.

Treatment

Once the disease is noticed in your herd it is good practice to take the temperature of all tied animals once or twice a day. You will notice that some will be running fevers and rocking although not even acting sick. Treating them

(Continued on page 27)

American Agriculturist, January, 1965

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CO-OP MEMBERS TO VOTE ON MERGER WITH AGWAY

Farmer-owners of 33 local associations making up the Pennsylvania Farm Bureau Cooperative Association will be asked to vote in the next two months on a proposal to merge with Agway Inc. Announcement of the proposal was made in December by PFBCA President Jacob N. Smith and Executive Vice President George G. Connor.

Agway is the new farmer-owned organization formed by the merger last July of Cooperative GLF Exchange and Eastern States Farmers' Exchange, regional cooperatives serving 12 northeastern states. Following the vote by PFB locals, the cooperative's regional board of directors will vote on a proposal to merge PFBCA with Agway. PFBCA is owned by its local associations.

Agway President Jonathan Davis of Sterling Junction, Massachusetts, and Executive Vice President Edmund H. Fallon of Syracuse, New York, in a letter to Agway members announced that the Agway board of directors has approved a proposal to include the Pennsylvania Farm Bureau organizations.

In a letter to all local association stockholders, Smith and Connor noted joint studies which had been conducted over the last several years by the three cooperatives regarding joint operation of some production and warehousing facilities. Their letter said that recently-completed studies showed considerable dollar savings possible for PFB and Agway as a result of reduced costs from merged operations.

Many Facilities

Formed in 1934, the Farm Bureau system includes 90 distribution points which serve farmers in the state with commodities and services. It employs 1,060; and combined membership in the local associations is about 54,000. Sales volume in its most recent fiscal year exceeded \$40 million.

PFBCA owns a feed manufacturing plant at Manheim, Pennsylvania; owns and operates a hatchery at Harrisburg, a seed processing plant at Manheim, wholesale farm supply warehouses at Greensburg and Florin, and poultry breeding and feed test farms near Harrisburg.

PFBCA also has bulk feed terminals at Winfield and Butler, and fertilizer blending plants at Mercer, Dayton, Uniontown, Bedford, Winfield, Lebanon and Blandon.

The regional organization furnishes management services to the Farm Bureau Marketing Cooperative through which all farm product marketing is done. Commodities marketed for members include tobacco, grain, eggs, poultry and livestock.

PFBCA is a joint owner, with other regional cooperatives, of a

petroleum refinery in Texas; a feed manufacturing plant at Cincinnati, Ohio; two fertilizer manufacturing plants at Baltimore, Maryland; a seed processing plant at Fort Wayne, Indiana; and a farm supply manufacturing and procurement cooperative at Alliance, Ohio.

PFBCA and its local associations are not affiliates of the American Farm Bureau Federation. The farmer group in the state allied with AFBF is the Pennsylvania Farmers Association.

Fever

(Continued from page 26)

then, as prescribed by your veterinarian, is usually successful. A day later, when the cow is off feed, might be too late, or at least necessitate more extensive treatment. Treatment is expensive at best, and there is a milk loss with milking animals. Prevention is far better than treatment; the best prevention is to raise all your own replacements.

You may farm for years and never see shipping fever, but some day you may have to bring in cattle. When you do, buy from a recognized source such as breed club sales or known farmer breeders. If you buy from a dealer, buy from one whose sole source of income is dealing in cattle. Such a man will not intentionally sell you diseased cattle, and will stand behind the sales he makes.

Dates to Remember

Jan. 6-8 - New Jersey State Horticultural Society and Vegetable Growers Assoc. annual meeting, Cherry Hill Inn, near Haddonfield, N.J.

Jan. 11-15 - Pennsylvania Farm Show, Harrisburg.

Jan. 16 - Mid-winter meeting, New York Flying Farmers, Auburn Inn, Auburn, N.Y.

Jan. 17 & 20 - National Galloway Show and Sale, Denver, Colorado.

Jan. 18-22 - Beef Cattle-men's Short Course, Cornell University, Ithaca, N.Y.

Jan. 19-21 - N.Y. State Horticultural Society & Empire State Potato Club & N.Y. State Vegetable Growers Association, Rochester, N.Y.

Jan. 25-27 - N.Y. State Holstein-Friesian Association annual meeting and sale, Rochester, N.Y.

Jan. 25-30 - New Jersey Farmers Week, Trenton.

Jan. 26-28 - N.Y. State Horticultural Society meeting, Kingston.

Jan. 27-28 - Eastern Angus Association Futurity and Open Show and Sale, Pennsylvania Farm Show Building, Harrisburg.

Jan. 30 - 8th annual Dairy Farmers' Seminar, University of Rhode Island, Kingston.

Jan. 31-Feb. 3 - 50th annual meeting (Golden Anniversary) National Dairy Council, Drake Hotel, Chicago, Ill.

Useful FARM BOOKS

Veterinary Handbook for Cattlemen (2nd Ed.)

J. W. Bailey \$6.75

Horses and Horsemanship (3rd Ed.)

M. E. Enslinger \$7.25

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Christmas Trees for Pleasure

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F. B. Morrison \$9.50

Elements of Dairying

T. M. Olson \$7.50

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Anthony & Eckles \$7.50

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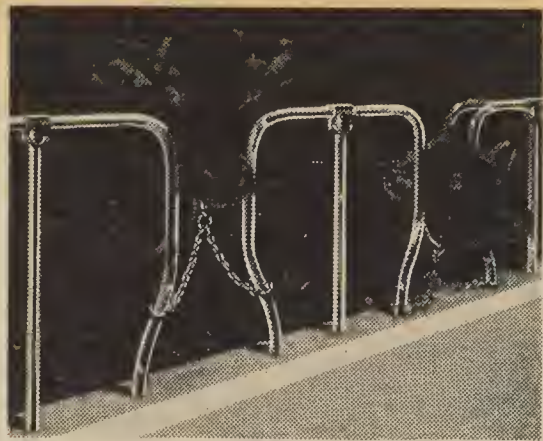
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Food For The Spirit



by Robert Clingan

HOW OFTEN a pastor enters into a person's feeling when that individual has been caring for a member of the family who has proved a real burden. The individual carrying the load has said or implied with tone and gesture, "If I could only lay my burden down!"

Then comes the day when the individual requiring so much care has left the home, either departing this life or going into a nursing home or hospital. When the pastor makes his family call he expects to find a certain buoyancy of spirit because the burden borne in love is gone.

But often the minister is surprised to hear that words of loneliness and emptiness have replaced the words and thoughts of burden-bearing. Now he hears, "How I miss him," "I don't know what to do with my time," and "How empty my life has suddenly become!"

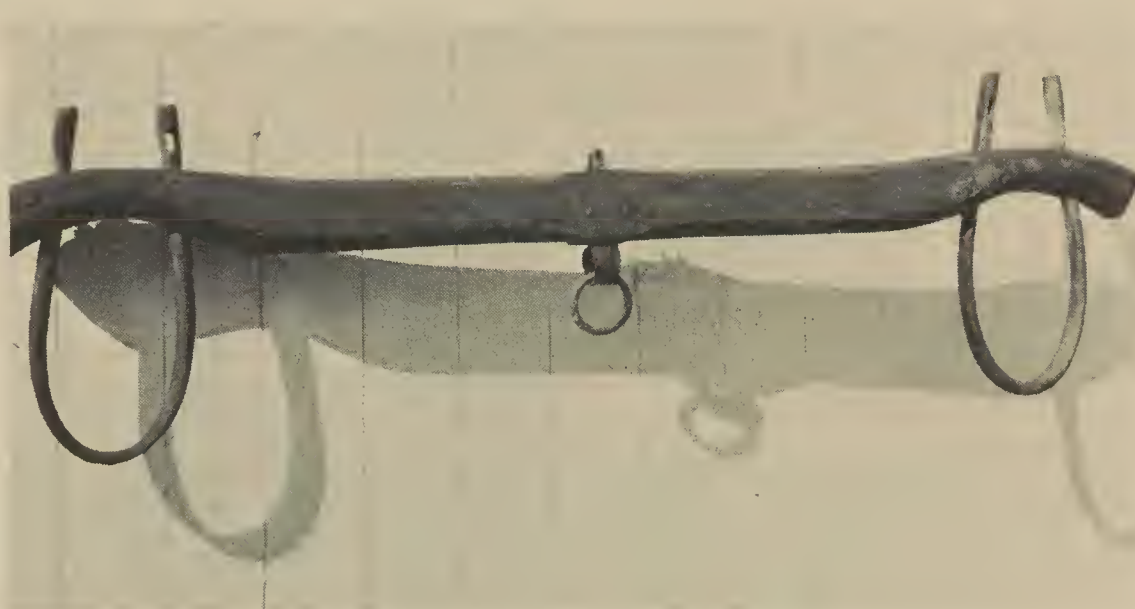
Here is one of life's compelling situations that calls for readjustment, reorientation, or a new organization of one's life around

other personal and family needs so long neglected during the days of burden.

This experience also gives a person a new opportunity to reflect on life's deepest meaning. We can rediscover that life finds its richest meaning when love calls upon us to discharge a responsibility that is difficult to bear. Personal growth requires service, sacrifice, perseverance . . . the kind that stretches our resources until we find our hidden reserves.

It is only the person whose life is bound by love and duty who discovers what life is all about. Only the bound are free, and only the crucified learn to live. This is what St. Francis meant when he prayed, "O Divine Master, grant that I may not so much seek to be consoled as to console, to be understood as to understand; to be loved, as to love. For it is in giving that we receive; it is in pardoning that we are pardoned, and it is in dying that we are born to eternal life."

Never lay a burden down to become free of all of life's responsibilities. Rather, when you lay one down that has been forced upon you, take upon yourself another burning concern, a challenging work, a ministry of mercy, to which you can respond with a love that will require your utmost. This is the way to live, and the way to find life's richest meaning at its deepest level.



Here's an ox yoke of unusual design . . . seven feet, four inches long, five feet between the bows, and only five and a half inches thick. Do you know for what special purpose such a yoke was used? If so, please write to James A. Keillor, Hillcrest, Wading River, New York.

The Song of the Lazy Farmer

This time of year makes some folks sad, but as for me I'm always glad when skies are gray and trees are bare and winter cold is in the air; when days are short and snow piles



deep, you'll never hear me make a peep. This season don't have many flaws, I like to see it come because it means there isn't much to do, that there's few chores outside to do; the colder nights make sleeping great and I can stay in bed 'til late. But best of all, it's winter when the pancake season starts again, and nothing that Mirandy makes is finer than her buckwheat cakes.

Now there is something really good, I never have quite understood why poets and philosophers have never written song or verse to put in words the mellow mood of mankind's finest type of food. What cook has ever made a dish that can come close to matching this: a stack of cakes of golden brown, with melted butter running down to join a maple syrup pool, no man alive except a fool could think of stopping until he has just enough strength left, by gee, to drag himself to couch or chair and doze the morning out right there.



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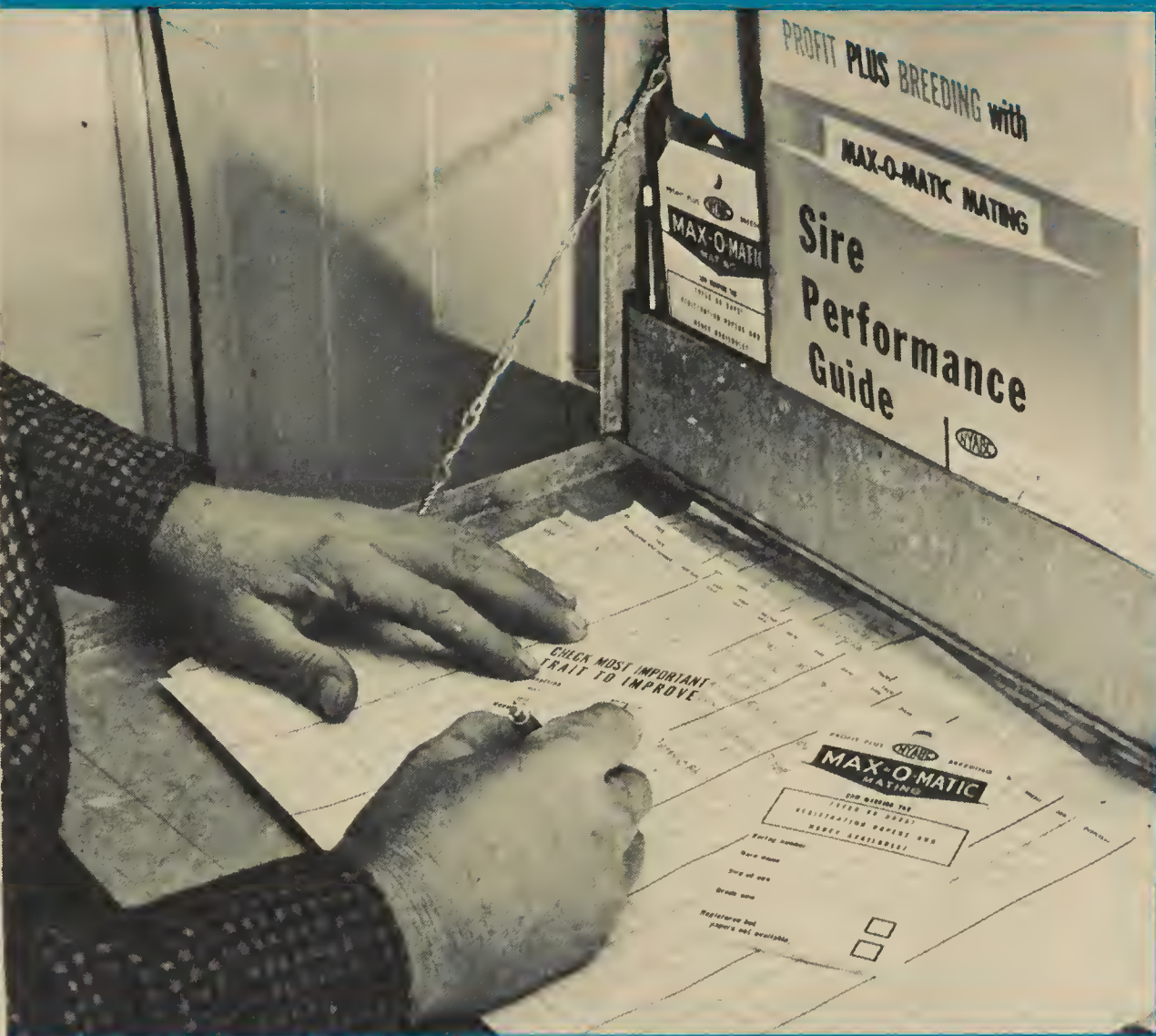
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American Agriculturist, January, 1965

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RECONDITIONED BY
MIRACLE CLEANING COMPOUND
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Saves annual pumping and digging. Restores faulty leachability back to newness. Cleans cesspools, drywells, overflows and clogged drains. Free descriptive literature and testimonial letters.

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NO TRESPASS SIGNS—On weatherproof Tag, with name and address: 200—\$15.00; 100—\$9.50; 50—\$6.50 postpaid. Chic Press, Monticello, New York.

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SEND WOOL TO US for beautiful, warm blankets. Free literature. El Dorado Woolens, Inc., Eldorado, Texas.

TRAVEL

ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 367, Ithaca, N.Y. 14851.

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TRAVEL

VACATION '65. Now is a good time to think about next summer's vacation. Why not join a friendly group on our 10,000 mile, 19 day Grand Circle Tour of the West? You will stay at wonderful hotels and eat at excellent restaurants, see 18 States, 5 Canadian Provinces, visit Mexico, see the Grand Canyon, Las Vegas and Hollywood; also the Canadian Rockies and Lake Louise. Now is the time to reserve for June, July or August 1965. Ask anyone who has taken one of our "Trips for a Trifle"; they will tell you what a wonderful time they had. Better reserve now, we sell out early. Price is only \$339.00 (no tax). Shanly International Corporation, 528-A Blue Cross Building, Buffalo 2, New York.

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SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

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"TOBACCO" Smoking ("ready mixed") or Chewing (sweet). 5 pounds \$3.00 postpaid. Fred Stoker, Dresden, Tennessee.

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WANTED — HORSE DRAWN CARRIAGES, surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

WILL BUY Indian Arrow Heads & Artifacts. Hiram Deeks, Sea Cliff, N. Y.

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WANTED: Old wall clocks, telephones, oil and gas lamps, lanterns, ships items. Harold Gray, 62 Knollwood Ave., Huntington, N. Y. 11743.

WANTED: Sawmill #1 or 2, also Lane Hand Edger. A. Christopher, Saddle River, New Jersey.

WANTED TO RENT

WANTED—Cash rent, Finger Lakes, 50 cow dairy farm, minimum 150 tillable acres. Box 514-CC, Ithaca, N. Y.

WOMEN'S INTEREST

QUILT PATCHES — 200 \$1.00. Buttons 800 \$1.00. Catalogue, Schaefer, Drummondville, Quebec.

IT'S SMART to buy everything at lowest price. Bargain Hunter's Guide tells where to buy appliances, books, clothes, household necessities, vitamins, etc. at savings up to 70%. Complete list, instructions just \$1.00. Rutward, 5003 Bryant, Columbia Station, Ohio.

HANDMADE PLASTIC EARRINGS, clip style. Most colors available, \$1.10 per pair postpaid. Alpha Decker, 745 Waterloo-Geneva Road, Waterloo, New York.

SAW KNIFE AND PEELER. Two for the price of one. \$1.49. K. S. Smith, 50 Montgomery St. (Up), Gloversville, N. Y.

QUILT PIECES! Percale prints for patchwork and applique! 1¼ lbs. \$1.00. 3¼ lbs. \$2.00. Postpaid. Ward Gould, 92A North, Medfield, Mass.

YOUR CHURCH OR GROUP can raise \$50.00 and more, easy and fast. Have 10 members each sell only twenty 50¢ packages my lovely luxurious Prayer Grace Table Napkins. Keep \$50. for your treasury. No money needed. Free samples. Anna Wade, Dept. 9BA1, Lynchburg, Va.

TOO LATE TO CLASSIFY

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock-doweled wind-resistant construction. Immediate delivery. Box BS-15, Unadilla Silo Co., Unadilla, New York.

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SAVE 75% OF ORIGINAL COST

Coveralls	white and colors, 36 to 46	1.89
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Add \$.75 for postage, NA COD.
All Sizes, Colors—Tan, Grey, Blue, Green, used, professionally laundered. Satisfaction guaranteed.

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Can You Bake a Cherry Pie?



CHERRY PIE CONTEST

An anniversary is always a memorable occasion, especially when it's a 30th anniversary! That's why we want the 1965 American Agriculturist — New York State Grange baking contest to be the biggest and best ever, for this is the 30th year our magazine and the Grange have teamed up to sponsor a baking contest in New York State.

During all this time, pie was not featured until 1962, and that year's apple pie contest proved to be one of the most popular we've ever had. So another family favorite, cherry pie, has been chosen to star in our 1965 anniversary contest.

All New York State Grangers are eligible to enter, and we hope everyone (men, women, and young people) will try their hands at baking a prize-winning cherry pie. If you're not already a Grange member, hurry and join this fine family fraternity, so you can take part in the fun and excitement.

The contest starts this month in the Subordinate Granges, so get in touch with the chairman of your Grange Service and Hospitality Committee. She will tell you the date of your local contest and give you a copy of the official score card, part of which is shown on this page.

Mrs. Agnes McHeffey, Heuvelton, N. Y., chairman of the State Grange Service and Hospitality Committee, and American Agriculturist Home Editor, Augusta Chapman, will direct the contest for the state. Assisting them will be two other members of the State Committee, Mrs. Lizzie Houck, Dundee, N.Y., and Mrs. Mabel Hyatt, Owego, N.Y., also approximately 1,000 Pomona and Subordinate S. & H. chairmen who will conduct the

local and county competitions. More than 5,000 Grange members are expected to enter the contest.

Contest Rules

Contest rules are simple; here they are:

1. Each contestant must be a member of a New York Subordinate Grange. All Grange members are eligible, with the exception of those who are professional bakers.

2. Each contestant will enter a two-crust cherry pie baked in an 8 to 10-inch round pie plate of any material and of appropriate depth for pan size. Pies made with commercial crust mixes and prepared pie fillings are NOT eligible for this contest.

3. Contestants will compete first in their Subordinate Grange Cherry Pie Contest. The winner of each Subordinate contest will then enter her Pomona contest — and, finally, next fall, the 53 county winners will each enter a cherry pie in the finals at State Grange annual session.

Christmas Comes Early!

"It's just like Christmas!" is what winners have said in past years when the prizes began to arrive after the state finals. Valuable household equipment and grocery prizes are awarded each year by American Agriculturist advertisers. State winners also receive cash prizes: \$159 in entry prizes from State Grange (\$3.00 to each contestant entering the finals) and \$107 from American Agriculturist, to be divided among the top 15 winners. Watch for the announcement and pictures of these prizes in a spring issue of American Agriculturist.

Prizes are awarded too in the Subordinate and Pomona contests. These arrangements are made by the Service and Hospitality chairmen who also secure competent judges for their contests.

1964 Winners

It's the thrill of a lifetime to be a grand prize winner in the finals at State Grange! "Since October 29, I've been floating around on Cloud 9," wrote Mrs. Carl N. Fox of Penn Yan, N. Y., No. 1 winner in last year's gingerbread contest.

"I received my Tappan range and baked two pumpkin pies in it for our Grange harvest supper. It is really fabulous!"

Teenager Linda Town of Kennedy, N. Y., the No. 2 winner in 1963, chose the Unico range for her grand prize. Linda wrote us, "I had a wonderful time being in the American Agriculturist — New York State Grange Gingerbread Contest and still can't believe that I was lucky enough to come in second."

"Since coming home, I've had to bake gingerbread for everyone in the bank where I work. Everyone was so excited and asked me a hundred questions. It was a great feeling!"

"I am looking forward to seeing the December issue of your magazine. Again, thank you for your letter, check, and wonderful time in Elmira."

Fourth place winner, Mrs. Ada Tefft, Greenwich, N. Y., had just moved into a new home and did not need her prize, a beautiful Monarch range. How thrilled the women of Bottskill Grange No. 1076 must have been when it was installed in their hall, a gift from Mrs. Tefft!

Act Now!

If you enter the 1965 Cherry Pie Anniversary Contest, YOU may be one of the happy and excited winners in the finals next fall. Most of the state winners get the surprise of their lives when they find themselves at the top. We often hear them say, "I never won anything before in my life!" So don't delay contacting your local Grange Service & Hospitality chairman. The contest is starting with a bang this month!



Co-directors of the 30th anniversary Cherry Pie Contest are Mrs. Augusta Chapman, Home Editor of American Agriculturist, and Mrs. Agnes McHeffey, Heuvelton, N. Y., chairman of the State Grange Service and Hospitality Committee for 1965.

Photo: N. Y. Cherry Growers Assn.

CHERRY PIE SCORE CARD

Each contestant will enter a two-crust cherry pie (a lattice top crust is acceptable) baked in an 8 to 10-inch round pie plate of any material and of appropriate depth for pan size. Pies made with commercial crust mixes and prepared pie fillings are NOT eligible for this contest.

		Perfect Score	Judges' Score
GENERAL APPEARANCE.....		20	
Size (5) Is pan right size and does pie fill it well? (not shrunken or stuck to pan from leaky edge).			
Appearance (15) Edge well sealed, attractively and evenly fluted, and not too thick; light to golden brown all over with edge only slightly browner (not burned, pale or dull); top slightly rough, pebbly, and blistered (but no large air bubbles); top attractively and adequately sloshed in center for escape of steam (not too large or too near edge).			
CRUST.....		40	
Tenderness (15) Crust cuts easily but still holds shape when served (not so tender that it falls apart; not tough or rubbery).			
Texture (15) Crust flaky throughout (not mealy); crispy (not doughy); bottom crust crisp and well baked (not soggy or underbaked).			
Flavor (10) Flavor of crust bland and pleasing to enhance filling (not raw, burned, or rancid).			
CHERRY FILLING		40	
Appearance of filling (20) Right depth for size of pan and pie; fruit tender and holds its shape (not mushy or too firm); natural color of fruit (not dull); pie slightly juicy when lukewarm or cold (not runny or very thick).			
Flavor of filling (20) As natural as possible and characteristic of the fruit; predominately sweet; appropriate seasonings used (not over-flavored); any thickener used completely cooked.			
TOTAL.....		100	

Recipe of the Month

"DUMPLINGED" MEAT STEW

3 to 4 pounds stewing beef, lamb or veal, cut in 2-inch pieces
Salt, pepper, and flour
4 or 5 medium carrots, peeled and cut on bias into 2-inch pieces

1 cup sliced celery
6 to 8 small onions, peeled
4 medium potatoes, peeled and quartered
1 package frozen peas

Parsley

Sprinkle meat with salt, pepper and flour and brown slowly on all sides in small amount of hot fat in heavy kettle or Dutch oven. Add water just to cover meat, bring to boil, cover kettle, and simmer over low heat (or bake in slow oven-325°) until meat is almost tender, about 1 1/2 to 2 hours.

Add all vegetables except peas, cover, and cook until meat and vegetables are tender, about 20 to 30 minutes, adding water as necessary to keep covered. Add peas about 10 minutes before other vegetables are tender.

Prepare dumpling mixture so it will be ready as the meat and vegetables are finished cooking. Sift together 1 1/2 cups all-purpose flour, 2 teaspoons baking powder, 3/4 teaspoon salt and stir in 3/4 cup milk, just to blend. Drop by spoonfuls on top of stew, but do not let them rest on the liquid. Cook 10 minutes with cover off; then cover tightly and cook 10 minutes longer.

Remove dumplings to edge of a large warmed serving dish and arrange stew in center, garnishing with parsley. Thicken liquid if desired. Serves 6 to 8.

What's Your Hobby?

Hobby letters from our readers

Napkin Rings

I collect napkin rings and have some from practically every country in the world — glass, silver, white metal, wood, straw, even one of china. I also do hand book-binding and have repaired or rebound books or Bibles with a sentimental value for friends.

I have a large supply of paper back love stories of the Gay Nineties period, which I'd be happy to give or exchange for napkin rings to anyone interested. They are supposed to be collectors' items. — Mrs. E. W. Smith, Reeds Ferry, N. H.

Waste Not, Want Not

For many years my hobby has been to collect what others have thrown away. I have taken good jewelry, pretty antiques and almost new furniture from rummage sales, factory rejects, and auctions, and even from local rubbish dumps and found someone who was glad to have what others didn't want. I believe my grandmother's quotation, "Waste not, want not," is very true today and would help many young people solve their expense problems. — Mrs. Vesta Tompkins Hommel, Box 444, Tannersville, N. Y.

Varied Interests

My hobbies are music and growing and propagating flowers for our market. I also like animals of all kinds and do a lot of sewing.

I would like to have International pen pals of any age and will answer all letters. — Marianne Sullivan, 136 N. Main St., Cedarville, N. J.

Family Historian

My hobbies are maps and collecting names of the Wallace family. My mother's name was Mary Wallace. I am historian for the Wallace clan in York County. I will answer letters from those who care to write me.

I also piece quilts and make Raggedy Ann and Andy dolls. — Mrs. W. J. Zinn, R. D. 5, Box 201, Dover, Pa.

From Hobby to Business

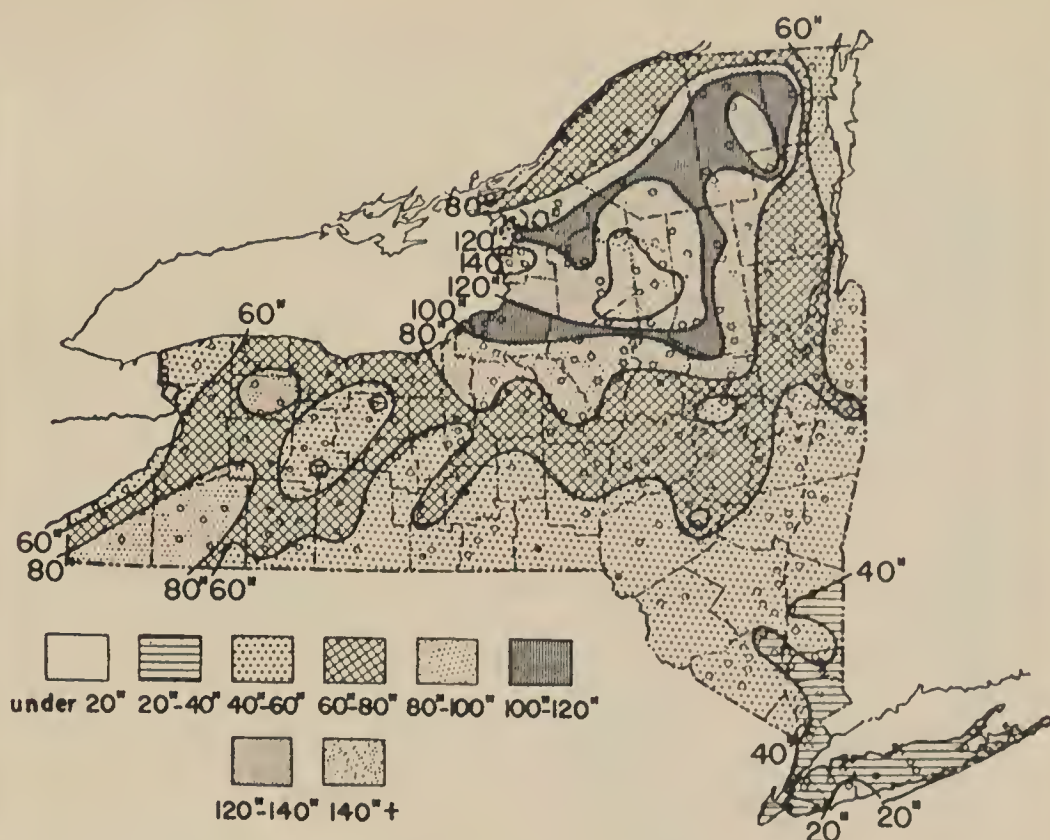
I have always been fascinated by cones and woody pods, so three years ago I decided to do something about it. I now have a workshop in the barn, a display area in the garage, and work with some 60 varieties of pods and cones. I make and sell wreaths, cone owls, centerpieces, pictures, candle holders, all-season charm swags, and teasel ostriches. I have many evergreens on my property that bear cones, and friends gather me theirs. — Stephany Grazul, R. 1, Whiting Rd., Clay, N. Y.



POST-CHRISTMAS MEMO

by Mildred Goff

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Write the thank you notes today.
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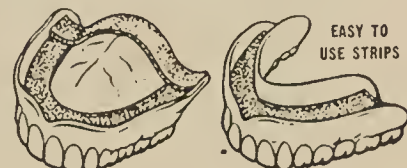
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American Agriculturist, January, 1965

A LITTLE JAM, ANYONE ?

By Hazel Andrews

IN SOME states, the Department of Commerce is sponsoring clinics for rural women to get advice on learning extra money through developing their hobbies. Most of these women aren't looking for a way to earn their bread and butter — but they get tired of bread and butter after a while and would like a little jam. I think if they want jam badly enough to do extra work for it, they should have it.

I'm an old jam-earner from 'way back. The first "Jam" thing I wanted was a typewriter. Ever notice how, when you really want something, a way opens up for you to get it?

At that time, a new tearoom was opening in our town. On a certain day, anyone interested was to bring an apple pie to be judged. So I did. The owner happened to like it, and I was in business.

I was to make five apple pies every day and up to twenty on special occasions. The pies had to be one inch thick in the middle — and don't think they weren't measured because they were!

Well, I had to earn that typewriter three times before I got it. Just when I had almost enough money, a cow would die or a harrow would break, and then I felt so sorry for my husband that I came forward with my cash and started over. The third time, the minute I had the price, I sent a friend to the city to buy the typewriter before something else died or fell in pieces. I had to stay at home to make pies.

I find this uncertainty of finances is not a condition peculiar to New England. A friend who married a Texas farmer planned several times to get back to visit her family, but each time something happened on the farm to take the money. Then one evening her husband came home, tossed a check in her lap, and said "Go see your folks." She took the midnight train.

Quick Change Artist

You wouldn't guess what was the greatest drawback to this pie business. It was changing my clothes!

I was helping to milk cows at that time. I'd get up early, dress for the barn, work there, then change (even to shoes and stockings) to get breakfast. After breakfast it was time to take the small truck to town with a load of milk for the wholesaler, come home and make the pies, and change my clothes to deliver them because one can't go to town all floury; then come back home and change for the house. And I might want to go out in the afternoon and even in the evening.

I think the record was sixteen changes in one day. I got so I could zip things off and zip then on in one continuous motion. If I looked most of the time as though my clothes were thrown on, that's because they were!

This job added a new word to our family vocabulary — "pie money." If I bought something my husband thought was extravagant, he'd comment on it, and I'd look surprised and innocent and say, "But DARLING, it's pie money!"

After a while he said he thought I was charging my pie materials to the family grocery bill and then spending more than the pie checks

amounted to. But he never could prove it.

Some of my neighbors earned money wall papering for the neighbors. Once I tried it when a woman was desperate to have her dining room ceiling done. It didn't look too bad, I thought, but next day the young son of the family reported that his father said there was a wrinkle in the middle but if they kept the shades halfway down, maybe no one would notice it.

Then someone asked me if I knew anyone who would make mincemeat for an apple orchard salesroom. Of course, you can guess what happened. I'm still making it. I put on my labels, "Like Grandma Used to Make and Hazel Andrews Still Does."

"Gimmick" Needed

About this time I saw where I could send to Washington and get a pamphlet on "Small Business." I was sure no business was smaller than mine, so I sent for it. The principal advice I received was to have a "gimmick," like the New York restaurant where only one meat dish was served, or the one where each customer was given a stick of striped candy when he paid his check.

The gimmick which made my mincemeat different was the addition of hickory nuts. Beside the road there's a long row of hickory trees which my husband helped his father plant some sixty years ago. The father went along making holes with an iron bar while the ten-year-old boy dropped a hickory nut into each hole from the small cloth salt bag he carried. I now compete with the squirrels and neighboring children for the harvest from these trees.

I find the consistent saving of dimes also helps my jam account considerably. This tiniest coin counts up to a very respectable sum yearly.

When my jam account gets big enough, I take a trip and make photographs for colored slides. Later I can do some small lectures for various groups and so earn a little more to repeat the cycle.

Unless one really wishes to make a career of her money-earning hobby, it's well to remember to keep it small. I could doubtless find more markets for my mincemeat but I want to keep it where it's fun to do. To attain the size of a Pepperidge Farm Bread outfit means assuming endless details of Social Security deductions, labor problems, and so on.

There's the case of the Cape Cod young woman who had a few goats. She decided that "goat berries" were an ideal odorless fertilizer for African violets, so she carefully dried them, packaged them in cellophane bags and sold them for fifty cents a pint bag. A local newspaper printed this story and the next week she received an order for 240 packages a week for the rest of the season. Stunned, she cried, "But three goats can't manage that much!"

Do we sometimes think we are being very modern when we earn our little jam money? Remember what Solomon said quite a while ago: "She considereth a field and buyeth it; with the fruit of her hands she planteth a vineyard . . . She perceiveth that her merchandise is good; her candle goeth not out by night . . . She maketh fine linen and selleth it, and delivereth girdles unto the merchant."

The women of those days also must have liked a little jam.



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Thank you, Mrs. F.F.

I enjoy reading the Household very much. It is like a nice long visit with people who are not caught up in this mad rush to nowhere. When you see all the cars and people rushing, rushing no one seems happy or content. But reading the Household you know there are people in their homes, doing the things they want to do, enjoying life and having such a quiet dignity.

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JANUARY GARDENING TIPS

by Nenetzin R. White

January is the month when rabbits and mice can start to do a lot of damage. A repellent sprayed on new fruit trees, flowering crabs, dogwoods, euonymus, and other shrubs attractive to rabbits will usually do the trick. More positive protection, of course, is to put hardware cloth or tree wrap around the trunks, but this is not always possible to do, as in the case of shrubs. A repellent dusted on the ground or under a mulch will usually discourage mice.

Remember that moles, attracted by grubs, are likely to find your spring-flowering bulbs and have a great feast. Grub proofing your lawn and borders will usually eliminate the moles and also cut down on Japanese and other beetles by destroying the grubs. There are repellents for deer, too, but if they get hungry enough, it seems that they'll eat anything. Try a fence if you have very many hungry deer.

Check Bulbs

Make a trip to your bulb storage area during January. A fruit cellar is the ideal storage place, but wherever they are, check them now. These summer-flowering bulbs should be in the same condition as they were when you dug them in the fall. If they have started to shrivel, add a little moisture to the storage media. Should they have a mold or fungus growth, remove some of the storage material, or fluff it up to get aeration. The bulbs can even be removed for a day or two in the air.

Mature gladiolus corms are best stored in flat trays without covering. Under unusual conditions, however, they may become too dry, and a small amount of slightly moist peat, vermiculite or sand can be added. Usually small corms or cormlets need a little slightly moist covering all winter.

Care of House Plants

House plants often begin to look a little tired at this time of year.



Maybe you started them in a sunny window but forgot that the sun goes south in the winter, and sometimes a new location is all they need. If specific plants are not doing well, get a book and read up on them. Most libraries have all kinds of good books on house plants, so consult them!

Very few house plants like heavy clay soil. I like commercially prepared sterile soil the best, but you can use good garden loam with some peat, vermiculite, sand or palite added. Do be sure to sterilize it, however, for if you don't believe garden soil is full of insects, just put a little under a microscope! Put the soil in flat trays in a medium oven for a

couple of hours.

Repot your plants if they need it, and wash the leaves (African Violets and Gloxinias should be brushed with a fine camelhair brush) so they can breathe. You will have to judge how much to water by the plants' desires and the type of soil you have used. For instance, the commonest problem of rubber plants is using too much water in too heavy a soil.

For insect or fungi damage, get a good spray bomb and use according to directions. African Violets are sometimes bothered by little white soil worms. To check for these, water plants from the top with warm water and watch the soil for a few minutes. (You may need a magnifying glass.) If tiny, white worms appear, get a product containing sodium selenate (usually in capsule form) and use according to directions. This is poisonous, so be careful. Also, isolate the infected plants.

The final winter pick-me-up for house plants is a fertilizer used every couple of weeks, according to directions.

Another thing to do sometime this month is clean and oil all your gardening tools, so they'll be ready to use in the spring. I would suggest having pruners sharpened professionally.

DO YOU HAVE . . .

A recipe for a Blackberry Pudding similar to the one Mrs. Leonard A. Dean, R. D. 1, Box 39, Redfield, N. Y., describes as follows: "My husband's great-grandmother used to make a Blackberry Pudding which he thinks was made of biscuit dough with berries rolled into the center, and then put into a bag and boiled or steamed." Mrs. Dean would also like to know if it's served with a dressing or with milk and sugar.

A recipe for Rose Jam, made from rose hips after the bushes are through blooming? Mrs. K. Gallagher, 41-11 48th St., Long Island City, N. Y., would like to find this recipe.

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Portuguese fishermen with part of the day's catch. These people are great users of the sea which fringes their country, and sardines are a particular Portuguese product.



THREE EUROPEAN TOURS

This year American Agriculturist has planned three European tours, each of them so delightful that it will be hard to choose which one you prefer. Two of them are air tours — the Iberian Holiday and British Isles Tour — while the third will be a Grand European Tour, crossing the Atlantic by luxury liner.

The three trips, like all American Agriculturist tours, are first class, escorted, all-expense vacations. If you have always wanted to visit Europe but hesitated to go alone, or if it seemed like a big undertaking to plan your sight-seeing, this is your opportunity to go in the most carefree, happy way imaginable. Our tour manager looks after all details, and you travel with a friendly, congenial group of people.

Spain And Portugal

First of the three tours, our Iberian Holiday, leaves on April 26 and returns May 17. Following are some highlights of this trip. The Grand European Tour is scheduled for May and the British Isles Holiday for September. We hope to bring you more information concerning these two tours in our February issue.

For our trip to Spain and Portugal, we will gather at New York's Kennedy Airport early in the evening of April 26. We will enjoy dinner speeding over the Atlantic in a giant TWA jet, view a first-run film before dropping off to sleep, and arrive in Madrid the next morning.

Then will come a succession of wonderful days which, in addition to Spain's capital, will include such fascinating places as Toledo, Segovia in the heart of old Castile, Escorial with its massive monastery, Barcelona, delightful Palma on the Island of Majorca, Granada, Gibraltar, Seville, Lisbon, and the seaside resort of

Estoril, favorite with Europe's royalty for centuries.

It's impossible to tell you all the interesting things we will see and do on this marvelous tour. There'll be plenty of time to shop, visit some of Europe's finest museums, stroll along wide boulevards and narrow streets, and to sun and swim at beautiful Palma if you wish. Also, on Sunday, May 2, arrangements will be made for those who desire to visit the bullfight at Barcelona, with a guide present to explain just what's going on.

We will be happy to send you full details of this outstandingly different tour. Just fill out the coupon below and mail it today. It will bring you an illustrated folder giving a day-to-day account of the trip, and we think you'll be surprised at the reasonable cost.

Caribbean Cruise

There's still room for a few more people to join us when we board the Queen of Bermuda in New York on February 20 and leave for two weeks of sheer delight in Caribbean waters. Ports of call include Barbados, Trinidad, St. Vincent, Guadeloupe, St. Thomas, and San Juan. Send for the itinerary today.

Gordon Conklin, Editor
Box 367-T
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:

Iberian Holiday _____

Caribbean Cruise _____

NAME _____

ADDRESS _____

(Please print)



How to Compare Barn Cleaners

The gutter chain is the heart of any barn cleaner. It's therefore a good measure of comparative value. Compare simplicity. A 100-foot length of Berg chain, for instance, has up to 749 fewer parts than some popular barn cleaners. Compare size. Berg gutter-chain links are 7½-inches long, 2¼-inches wide, and ½-inch thick. And links weigh over two pounds each. Compare design. One-piece gutter-chain links, of special alloy forging steel, hook end-to-end. There are no pins, rivets, or bolts to rust, bind, or break. And they resist corrosion by barn acids, too.

Another feature of the Berg barn cleaner is its roller-chain drive. It keeps dozens of teeth in mesh to withstand strains that break cogs. And a 200-to-1 speed reduction greatly reduces the power needed to pull long gutter chains. Seamless steel elevator chute of 10-gauge steel, and self-aligning ball bearings are also outstanding features.

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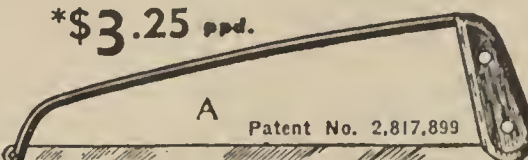
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ED EASTMAN'S PAGE

WHAT PHILOSOPHY GUIDES YOUR LIFE ?

Although he may never have put it into words, I believe that every mature thinking person has a goal or ideal toward which he strives every day. This may be called his philosophy, which Webster defines as "a particular system of principles for the conduct of life."

I have always thought it is just as important to live as to make a living, and to live right one needs a philosophy. So, recently I wrote to a few of my friends in different walks of life, whom many of you know, asking for a very short statement of their philosophy. Their answers are given below.

At this beginning of a New Year maybe it's a good time to think about your own philosophy. What principles guide your life?

Educator

When I was a member of the New York State Board of Regents, I had the privilege of working with and knowing well Dr. James E. Allen, Jr., Commissioner of Education of the State of New York. If you knew Jim as I do, you would be grateful that the educational leadership of our boys and girls is headed by such a wise and kindly man.

Boy or man, I never went anywhere that my mother or my wife didn't say, "Be a good boy." I guess all good women impress this on their men.

Commissioner Allen said: "I have never given much thought to the philosophy I live and work by. I just try to be a good boy! I have found a great deal of personal satisfaction in a little poem which hangs in my office. It is from the last stanza of Henry Van Dyke's poem 'Henry Hudson's Last Voyage.' In this poem, Van Dyke describes the storms and mutiny which have plagued Hudson and his crew. After quelling the mutiny, he turned to his first mate and said:

So point her up, John King,
nor west by north
We'll keep the honor of a
certain aim

Amid the peril of uncertain ways,
And sail ahead, and leave the
rest to God.

Religious Leader

One of the finest and wisest religious leaders I have ever known is Rev. Kenneth A. Roadarmel, general secretary of the New York State Council of Churches.

"Roady" — as his friends call him — spends his life helping to bring the churches into closer working relationships and cooperation. He answered my letter by saying:

"I believe that God is Life — life at its fullest and best — and that we should go out and live life, which it seems to me is living God.

"I believe that we can out-love almost anything in this world of ours, far more than we can out-organize or out-argue or out-fight.

Farm Editor

With the American Agriculturist and Rural New Yorker now working as one with one-quarter million rural folks as subscribers, the publication, under the editorial leadership of Gordon Conklin, has the greatest opportunity in the long history of either publication to serve YOU, its readers.

It will meet that responsibility in every way, because Gordon not only knows his agriculture but he has the ability and the courage to say what he thinks, and he well recognizes the spiritual needs of

I don't mean that there isn't a place for discipline, and that there isn't a time when we have to take a stand.

"I do believe that there is happiness in the motto, 'Enough to eat, enough to wear, enough with friend and neighbor to share, and never do less than my very best.'

"Too simple a philosophy? Well, I believe in some simple basic things in life."

Farm Cooperative Leader

One of the most successful cooperative leaders that I have ever known is E. H. Fallon — "Ed" to his friends. Formerly general manager of G.L.F., he is now the executive vice president of Agway. Ed has a dynamic, enthusiastic personality, in addition to his high ability. Talk with him for five minutes and you'll want to go out and do your own job better. Ed stated his philosophy in one sentence.

"You can have anything within reason, provided you are willing to make the sacrifice to obtain it."

Agricultural College Dean

The New York State College of Agriculture at Cornell has always been fortunate to have great deans to lead it. Of these, there is none greater than my lifelong friend,

Dr. William I. Myers, now retired, but working for others harder than ever. Bill said:

"One of the tenets of Christian philosophy which seems to me to be the most fundamental of all is the Golden Rule. To live up to this principle it is necessary to have respect for the lives and opinions of others and to like people. In my opinion, one of the most important principles of life is for each individual to live in such a way that the world will be better because he has passed this way.

Successful Farmer

Robert Schallenberg of Westernville, New York, is as good a farmer as I know, with a heart that overflows with generosity and love. Bob said:

"I always try to be cheerful when I meet anyone, and I like to see a smile or a laugh. I have learned to keep calm when things go wrong and look at my faults before I blame others. Above all, I pray each day that I may keep this way."

Undertaker

Mr. Neil MacPherson is an

people as well as their material needs. Gordon states his philosophy of life as follows:

"The purpose of life is to grow — spiritually, intellectually, and in general competence. There are two essentials for leaving behind the familiar landmarks and moving with faith toward unknown horizons: sharing experiences with our fellow man, and having sincere communion with our Creator. I ask for no shallow 'happiness,' but rather for the joy that is a by-product of constructive living."

undertaker in Newark Valley, my home town. Perhaps I can best express my feelings toward Neil by saying that when the time comes for anyone I love, or for myself, to depart this world, I would rather have Neil take care of us than anyone else. In answer to my question about philosophy, Neil said:

"So to live that when the Master's call comes I shall hear the words 'Well Done!' I know that to qualify for those words I shall have served my God and my fellow man well."

Farm Leader

Thousands know and love James A. McConnell of Mansfield, Pennsylvania, for years general manager of the G.L.F., later assistant secretary in the United States Department of Agriculture during President Eisenhower's administration. I know of no other American who stands more solidly for the principles that made this country great. Jim McConnell said:

"I think my personal relations in life have been governed by the Golden Rule. I have found that people who lead this kind of life enjoy people and events more.

"During the years I have acquired a strong belief in the ability

of the individual to produce a better society than in any other way. I have come to hate any society which requires a strong police state to attempt to make it work. It seems to me that we are already well over in that field as we become numbers instead of individuals."



School Principal

One of the finest homes I have had the privilege of visiting in recent years is that of Mr. and Mrs. Kenneth L. Lamb. Mr. Lamb is principal of the Central School at Henderson, New York. When I gave the commencement address there, I had opportunity to observe the great love and respect the students have for him. Answering my question about his philosophy, Kenneth said:

"I believe in the Golden Rule as the best single guideline of what man's relations to his fellow man should be. I believe in the worth and dignity of each human individual, and further, that the goodness inherent in all mankind can be developed and trained to offset the evil which likewise to a certain degree exists in all humans.

"Finally, I believe that the millennium of human relations can never be achieved through the passage of laws in the halls of government, but only as each one of us in our own heart subscribes to a code of moral conduct based on the highest traditions of our Judeo-Christian ancestry."

Governor

Thomas E. Dewey will go down in history as one of New York State's greatest governors. I have often wondered what would have happened if Dewey had been elected president of the United States when he was a candidate. He states his philosophy as follows:

"I believe in working hard at whatever one is best able to do, employing natural talents to the limit to make the largest contribution to the success of our social and economic system. To me, this is the route to happiness."

EASTMAN'S CHESTNUT

Part of my philosophy is to make my friends laugh. This should give you a chuckle or two.

"Yes, Sir," panted the new hired man, just out from the city, "I've got all the sheep in — but I had to run some to get those lambs."

"Lambs! I have no lambs," said the farmer. "Let's see what you've got."

Looking into the shed, the astonished farmer saw 14 jack-rabbits!

American Agriculturist, January, 1965



SERVICE BUREAU

I RESOLVE . . .

TO AVOID BEING a "sucker," to save money and heartache in 1965, these are my resolutions for the New Year:

1. I shall make sure that any New York State dealer to whom I sell farm products (grain and timber excepted) is licensed and bonded by the N.Y.S. Department of Agriculture and Markets; and I shall ask for evidence.

2. I shall request credentials of anyone who calls at my home, claiming to be a fire department, furnace, or insurance inspector; a salesman of lightning rods or fire alarm systems; or a social security representative. If I still have any doubts, I shall check with his headquarters by telephone.

3. If I am in the market for fire extinguishers, a fire alarm system, or lightning rods, I shall be sure I am dealing with a reputable company and that the equipment is approved by Underwriters' Laboratories.

4. I shall be cautious in dealing with any salesmen, knowing that the majority who are honest will not object, but the unscrupulous few will try to pressure me. I shall not be rushed into reaching a decision; if I am rushed, I shall be stubborn.

5. I shall check the reliability of any company with which I am unfamiliar. I shall ask for names of some previous customers and check with a few of them.

6. I shall get more than one estimate on any necessary home or farm improvements, and shall compare prices and quality.

7. I shall read very carefully any contract which I sign, and shall make sure there are no blank spaces, and that I have a copy for myself. I shall rely, not on any verbal promises, but only on what is printed in the contract. I shall consult a lawyer if there is anything I do not understand.

8. I shall not sign a completion certificate or make final payment until I am sure that any work has

been completed satisfactorily. If a guarantee is involved, I shall insist it be written.

9. I shall not make financial commitments which I cannot meet.

10. I shall not be misled by "referral selling" or "something for nothing" promises; whereby I may be promised cash payments or credit bonuses on something I buy if I furnish names of other prospects to the agent. I realize that no commissions are guaranteed on these jobs, and none are forthcoming.

11. I shall not be fooled by big savings claims used by some so-called "catalog houses" or by "consolation prize" offers made by some sewing machine companies. I shall understand that I will get what I pay for.

12. I shall not be taken in by offers of "free magazines." Many who agree to such free offers find themselves committed to pay so much a month for several years.

13. I shall not buy any land or homesite without seeing it first. And I shall consult a lawyer concerning any real estate dealings, whether buying or selling.

14. I shall consult my banker or a reputable local dealer in securities, if I desire to make investments.

15. I shall be equally careful in buying insurance and shall deal only with companies which are licensed by the State Insurance Department. I shall read the policy carefully, and talk it over with the insurance salesman to be sure I understand exactly what the coverage is (as set forth in the policy) and any limitations. I shall answer any questions on the application completely and truthfully to avoid any future problem.

16. I shall not expect to make money by sending \$2 or \$3 to some promoter who has offered a scheme for getting rich at home.

17. While remaining alert, I shall not lose faith in humanity, realizing that, although there are a few unscrupulous "gymps," there are thousands of reliable companies, honest businessmen, and reputable salesmen.

At this year's beginning, we should like to remind you that every subscriber is a member of our Protective Service and entitled to our free help and advice. We answer thousands of letters each year and hundreds of questions, and we succeed in ironing out many difficulties between our subscribers and commercial concerns.

There are a few problems, however, that we are not qualified to handle. We cannot give investment or legal advice, or take part in any legal action; nor do we become involved in any complaint which is already in a lawyer's hands. We cannot enter into disputes or collect bills between individuals, relatives or neighbors; nor can we collect accounts for commercial concerns.

6 Year Old Hurt While Sliding



Elmer Konu spent five weeks in the hospital under traction for a broken thigh bone. He was riding his new toboggan down hill when it hit a bump, rolled and threw him off. Elmer is pictured in the hospital and later happily recovered.



Local agent Charles Graham of Liverpool, N.Y. delivered \$810.72 to parents, Mr. & Mrs. Einas Konu at their farm near Fulton, N.Y. When asked how they felt about North American protection, they wrote:

"Yes, we surely would advise you to insure your children with North American Accident. We carry it on our four children and ourselves.

We were well pleased over the service and will always keep up our protection."

Mr. & Mrs. Einas Konu

OTHER BENEFITS PAID

Fred LaGoy, Cadyville, N.Y.	\$ 124.07	Kenneth LaFave, Brasher Falls, N.Y.	\$ 151.42
Crushed by cow - broke ankle		Car jack slipped - fractured clavicle	
Victor Talbott, Fillmore, N.Y.	514.31	Charles C. Cowin, Stillwater, N.Y.	179.28
Lifting bags of fertilizer - ruptured bicep muscle		Fell thru hay chute - fractured wrist	
Stephen Lippert, Allegany, N.Y.	456.13	David Van Wormer, Middleburg, N.Y.	810.16
Thrown from horse - injured chest, broke rib		Auto Acc. - broke foot, injured knee, concussion	
John C. Swanson, Sinclairville, N.Y.	848.65	Cameron McClary, Avoca, N.Y.	1315.30
Kicked by cow - dislocated shoulder		Caught hand between belt & pulleys	
Edward T. Daly, Scipio Center, N.Y.	1102.55	Anna E. Gorgela, Jamesport, L.I., N.Y. ...	200.85
Caught in mixer - fractured wrist, cut hand		Fell - broke wrist, injured leg	
Robert Hudler, Vega, N.Y.	102.84	Irene Karwoski, Riverhead, N.Y.	198.78
Pinned by cow - chest wall injury		Cut by glass - cut tendon of finger	
Louis Draht, Elmira, N.Y.	711.00	Kenneth Ward, Candor, N.Y.	748.83
Thrown from wagon - fractured vertebra		Attacked by bull - fractured ribs, bruises	
Harold J. Lee, Bainbridge, N.Y.	375.00	Malvern Schilling, Trumansburg, N.Y.	1277.75
Tractor tipped over - broke collar bone, bruises		Auto Acc. - fractured vertebra, ribs	
Ray Kniffen, Little York, N.Y.	1118.07	Willard Skellie, Greenwich, N.Y.	1014.86
Stepped in hole - fractured leg		Kicked by cow - fractured leg	
Raymond Conover, Gloversville, N.Y.	416.86	Anna DeWolf, Palmyra, N.Y.	857.62
Fell off truck - injured hips, neck		Hit by car - broke collarbone, ribs, bruises	
Glenn L. Gibson, Oakfield, N.Y.	1053.02	Earl Branter, Penn Yan, N.Y.	416.48
Car hit his tractor - broke elbow, crushed lung		Auto Acc. - injured neck, back, ribs, legs	
Floyd McMahon, Mohawk, N.Y.	1900.00	Jennie Voorhees, Gillett, Pa.	361.33
Hit by car - broke leg, ribs, injured kidney		Slipped on floor - fractured ankle	
Joseph A. Robbins, Carthage, N.Y.	247.11	Claude Clark, Jr., Wyalusing, Pa.	121.00
Tractor jackknifed - fractured ankle		Heifer knocked out two teeth with horn	
Adolph Kopack, Port Leyden, N.Y.	355.70	Richard Schweizer, Trenton, N.J.	257.14
Slipped from roof - injured back		Sharpening knife - cut tendon and nerve	
Harold G. Devellder, Caledonia, N.Y.	384.00	Albert VanHorn, Belvidere, N.J.	229.28
House fire - burned arms, legs		Engine kicked - fractured arm	
Gaylord Stearns, Cazenovia, N.Y.	268.57	Nicholas Danyluk, Great Meadows, N.J.	615.36
Slipped - back injury		Fell from truck - injured shoulder, knee	
Charles Rector, Amsterdam, N.Y.	406.50	Lawrence Foster, Madison, Maine	168.00
Kicked by cow - fractured foot		Foot caught in planer knives	
George Seavy, Marcy, N.Y.	481.30	Mary E. Hart, Greenfield, Mass.	310.00
Hit by board - facial & scalp cuts		Hand went thru window - cut arm	
Donald Howe, Montgomery, N.Y.	320.00	Freda Rogers, Wells, Vt.	117.14
Caught arm in baler - injured arm		Crushed by cow - injured ankle	
Etta Beales, Lyndonville, N.Y.	611.61	Arthur Pepin, Newport, Vt.	450.55
Auto Acc. - fractured shoulder bone		Stepped on broken bottle - cut foot & tendons	
Verna Cummins, Martville, N.Y.	564.65	Walter Battles, Randolph, Vt.	300.00
Auto Acc. - injured chest, cuts & bruises		Gored by heifer - injured back & bruises	

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FALLRED

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MUCH EARLIER, HIGHER PROFIT FALL HARVEST

NEVER BEFORE did a new Raspberry offer so many advantages to growers, nor attract so much attention wherever tested! Developed by the late A. F. Yeager at the University of New Hampshire, Fallred has both advanced and lengthened the fall bearing season. Increasing the size and value of the fall crop has not lessened the heavy June production.

From mid-August till freezing, when prices are highest and help is easier to get, you'll have extra fancy raspberries — large, firm, rich red, easy to pick, never a glut on the market. Widely tested in northern states since 1956 — proved earlier, extra hardy, superior. You'll pick berries this fall from the plants you set out this spring.

Fallred bears a heavy autumn crop on each year's new canes, followed by a heavy crop the next June. The sturdy, compact canes maintain a low, convenient picking level, never need support. Most chance of winter injury is eliminated.

With mounting labor costs and scarcity of help in the more prevalent June picking season, a heavy fall crop has become more and more important for the most profitable acreage in raspberries. You'll welcome the long-season fall crop of larger, excellent-flavored, fancy grade fruits from mid-August till frost. Frequent clearing away of old canes eliminates most chance of common fungus diseases. Fallred makes sucker plants freely, is easy to grow. This will quickly become your main crop raspberry.

The plant supply is limited. So that a much greater number of growers can begin to profit from Fallred, we must limit orders to 100 plants from a customer.

Kelly Quality A-1 Plants Now Ready

10 for \$4.25
25 for \$8.50

50 for \$17.00
100 for \$28.00

**Get In On These Bigger Profits — To Be Sure
of Your Fallred Plants, Send Your Order Today!**



Kelly's Pride in Money-Making Everbearing Strawberries

GENEVA

**No Other Kind Can Compare
Extra Fancy Berries June till Frost!**

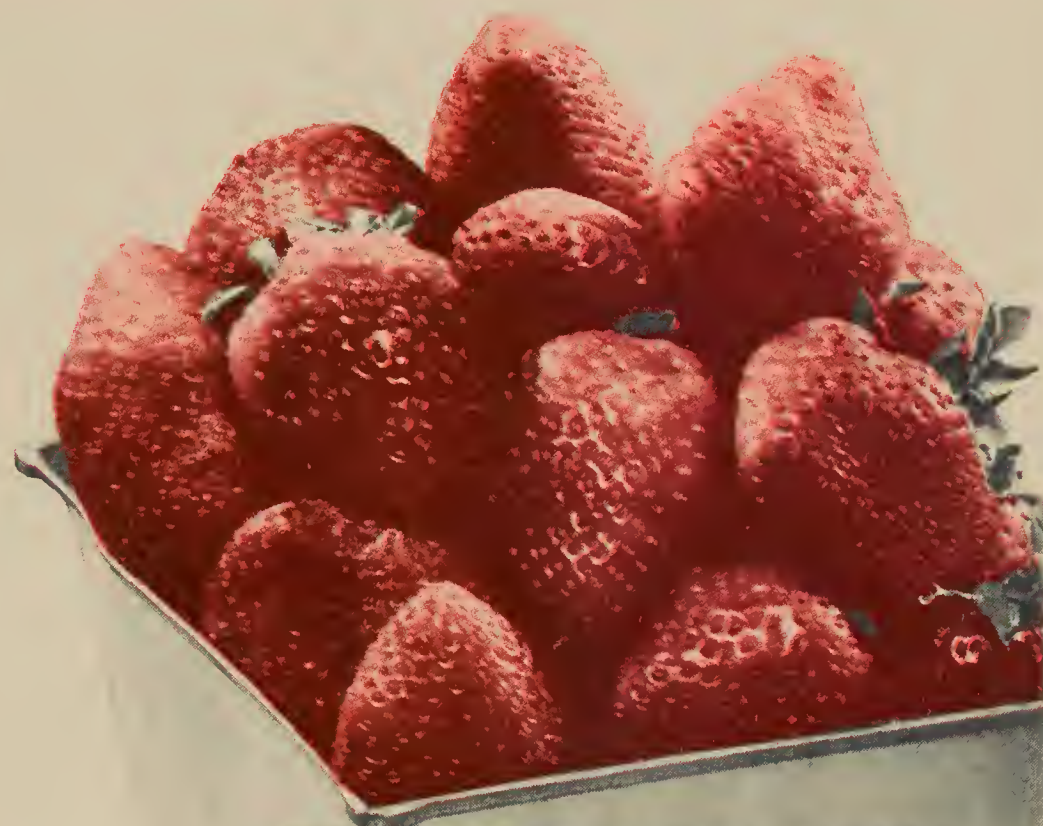
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American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER

FEBRUARY 1965



3

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Mail completed application with \$1 for each person to be covered to:
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APPLICATION TO NATIONAL LIBERTY LIFE INSURANCE COMPANY, VALLEY FORGE, PA.

NAME (Please Print)	First	Middle Initial	Last
ADDRESS	Street	City	Zone
AGE	DATE OF BIRTH	Month	Day
I also hereby apply for coverage for the members of my family listed below: (DO NOT include name that appears above).			
NAME	RELATIONSHIP	AGE	DATE OF BIRTH

Neither I, nor any person(s) listed above use alcoholic beverages; have had no previous rejection of any application for health, hospital, or life insurance; and have not been advised to have an operation which has not yet been performed. I hereby apply for the Gold Star Medical-Surgical-Nurse Plan, Form #NILE-4-10-64. I have enclosed \$1.00 for each person listed above for the first month's coverage. I understand the policy is not in force until actually issued.

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SIGNATURE X _____ Date _____

NOTE: Those eligible for coverage as a Family Member are your husband or wife, dependent single children under age 19 and any adult dependent(s).

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Trudan I is catching on fast. Northrup King's entire supply of Trudan I seed has been sold out every year since it was introduced. Many dealers are already sold out of their 1965 allotment.



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American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 162 No. 2

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OUR COVER

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Henry Mueller reports on Barn Cleaners:



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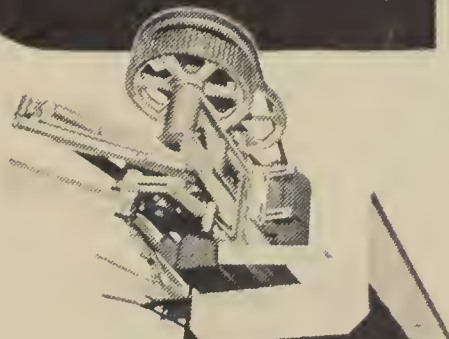
"My first Badger Barn Cleaner has worked every day for 12 years. It's still going strong.

"Now I've expanded again. And you can bet I wanted another dependable Badger in my new barn."

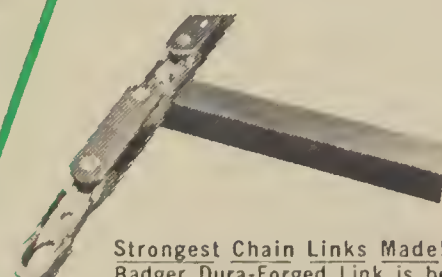
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EDITORIALS

by GORDON CONKLIN



EXTENSION SERVICE

For five years of my checkered career I served on the Extension Service staff in Cayuga County, New York. County agent work has its problems, as does any profession, but those years deepened even further my existing affection and respect for farm people. It was a rewarding experience to take part in an effort that has helped make this nation the wonder of the world in material wealth... and yet an effort that was and is people-oriented.

Extension leaders across the Northeast are in the process of searching for ways to keep methods abreast of changing times. Those in New York, for instance, are working to implement recommendations recently made by committees representing lay leadership as well as professional staff.

Basically, these groups grappled with the purposes, techniques, and organization of Cooperative Extension. What is the job to be done? What relative emphasis should be placed on different types of subject matter and clientele? How can administrative procedures be streamlined and made more efficient?

One recommendation that sugared off from the study concerns greater emphasis on a regional approach, rather than strict observance of county lines. In fact, authorization is called for to consolidate two or more county Extension Service associations if desired.

Another proposal is to have an Agriculture Division, a Home Economics Division, and a 4-H Division... with authorization to add other divisions as needed. Added authority would be given to the boards of directors of the county Extension Service associations for coordination of programs. Consolidation of budgeting and accounting is proposed to replace the present division of these functions among agricultural, home demonstration, and 4-H departments.

Simply stated, the Extension Service is moving to adapt its procedures to changing times. It's healthy for organizations... and individuals... to do a bit of self-examination now and then in order to be prepared for the demands of tomorrow.

My conviction is that Cooperative Extension has done a remarkable job of improving the lives of people... and has done so within a finely-balanced framework of support (and therefore involvement) from federal, state and local sources. I am also convinced that its basic philosophy remains relevant to the present and the future... in spite of inevitable disagreement concerning specific programs and areas of emphasis.

Let's do our level best to see the value of the "Extension woods" rather than becoming antagonistic about some particular tree that may not fit our individual opinion about what the county agent should be doing. The dynamic potential of people to move forward is as great as ever; the possibilities are everywhere for Extension workers to be catalysts of constructive change.

In the Cooperative Extension Service we have a proven vehicle to help farmers, rural nonfarmers, homemakers, and young people sort out the best alternatives to fit their particular situation. It's also a proven vehicle for moving society as a whole toward an expanding material abundance, as well as developing programs creating a more informed

electorate... absolutely essential to any democracy.

Its superstructure is being remodeled to meet the needs of the atomic age, but its foundation... providing information and leadership to "help people help themselves"... remains unchanged.

This is the great challenge of our time... constantly to change our society and yet retain the foundations that are rooted in the basic constants of human nature and in the immutable moral laws of the universe. Upon this foundation man has erected a social structure composed of techniques and custom... a structure that needs to be in a constant state of revision as new information and new needs are thrust upon us.

May God grant us the wisdom to differentiate between foundation and superstructure!

DAIRYMEN'S LEAGUE

The Dairymen's League moved fast and hard into a sticky situation when it tackled the problems connected with the Duley milk plants in northern New York. The League made good on Duley's milk checks that had bounced, and made arrangements to continue providing a milk market for dairymen in that area.

After visiting with a number of people connected with milk marketing, I conclude two things. First, it's to producers' advantage to have a farmer-controlled organization with sufficient ready capital to move quickly when conditions demand it. Good intentions are always desirable, but they must be combined with a hard roll of green stuff when it comes to hammering home nails in the business world. Farmers have long recognized the advantages of flexibility provided by ready capital in their own businesses, but have sometimes been slow to see a similar need in their cooperatives.

Secondly, I'd be willing to bet that time will prove that the League did not jeopardize their members' interests by "bailing out" producers shipping to Duley plants. The exact details of the arrangements worked out aren't public information, but I have confidence in the business ability of League leadership. Here's another example of the importance of choosing cooperative leadership carefully; inevitably there comes a time when leaders must make far-reaching decisions without the time to consult membership.

REAPPORTIONMENT

Professor Ed Lutz and his staff at the New York State College of Agriculture at Cornell University have done a tremendous job of figuring out the impact of the Supreme Court mandated reapportionment in New York State. His calculations are presently based on the assumption that 1960 population figures would be used as the basis for allocating representation.

Briefly, representation in the State Legislature doesn't change as drastically as you might suspect. New York City, for instance, would gain 1.89 senatorial seats over what it now has; the senatorial district composed of Lewis, Jefferson, and Oswego counties would lose .32 (ever see .32 of a seat?).

In the State Assembly, changes would range all the way from Nassau County's gain (from

6 to 11.62 assembly seats) all the way to Schuyler County's loss from 1 down to .13 seats. Suburbia is the gainer in representation... Erie County would go up from 8 to 9.52, Monroe from 4 to 5.24, and Suffolk would gain 2.96 seats. Forty-one upstate counties would have their present representation reduced, ranging from the largest decline in Schuyler County already mentioned all the way to St. Lawrence County, where the drop would be from 1 to .99 assemblyman.

The real kicker, though, will come to pass when and if reapportionment by population is applied to the boards of supervisors in counties across the State. There are two parts to this change... representation from cities versus representation from towns, and representation changes among towns. In the first category the figures show that cities of the State would gain a total of 24 supervisors; the towns would lose 24... excluding Nassau County, where a form of weighted voting already exists on the County Board of Supervisors.

It's in the second category... that of reshuffling representation among the towns... that the really big impact of reapportionment is found. For instance, the Town of Colonie in Albany County would gain 642 percent (going from 1 to 7.42 supervisors); the Town of Union in Broome County would gain 803 percent (from 1 to 9.03); the Town of Malone in Franklin County would jump from 1 supervisor to 5.06.

There is quite a list of similar situations in many counties where a few heavily-populated towns would gain representation at the expense of many less-populated ones. In Broome County, for example, the towns of Union, Vestal, and Chenango would all gain in supervisor numbers; the other 14 towns in the county would all lose in number of supervisors.

Many people just don't quite believe what has happened, and haven't come to grips with the far-reaching impact reapportionment will have, particularly on the local political scene. In my opinion, rural people should not content themselves with complaining that reapportionment is bad, but should rather seek to further develop long-range programs designed accurately to inform urban and suburban people about things that influence rural interests. Much has already been done in this direction; much more needs to be done.

My prediction, particularly in the light of recent sweeping changes in congressional membership, is that reapportionment on the basis of population will not be overturned by amending the Constitution or by act of Congress. Farmers and other rural residents will lose representation, intensifying still further the existing need for articulate and mutually respectful dialogue between rural people and their urban and suburban neighbors.

FOOD DISTRIBUTION

If you haven't already seen it, let me suggest you stop at the Food Distribution Center in Philadelphia when traveling in that area. Guided by genial New Jersey correspondent Amos Kirby, I did just that not long ago.

Some food wholesalers and buyers resisted the move from the fantastic confusion of Dock Street to the FDC, but Philadelphia's Dock Street was obviously hopelessly inadequate to handle the changes sweeping the food business. There is plenty of room and the latest facilities at the Center... with new buildings going up that are already beginning to crowd the acres once considered to be more than adequate.

A few hours spent at this gigantic and efficient food distribution complex would help anyone better understand that somewhat nebulous term "marketing."



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- ✓ Timothy looks good
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- ✓ Clovers are in good supply, too
- ✓ Alfalfas are in better supply than last year
- ✓ Saranac is an exception but Agway has obtained a good share of the limited supply
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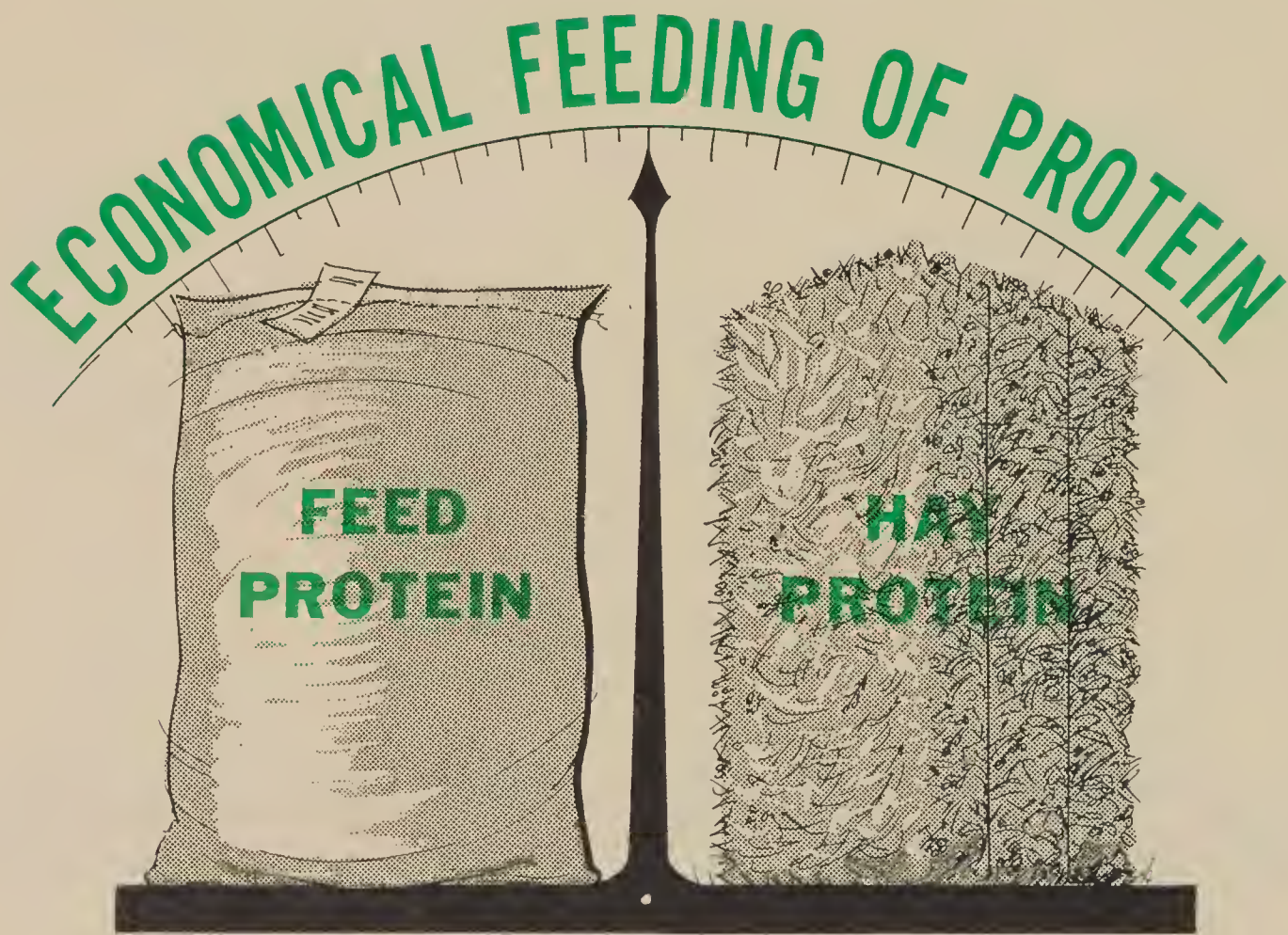
- ✓ Saratoga Brome is in very limited supply
- ✓ Trefoils, like last year, are in very short supply
- ✓ Corn looks good with an adequate supply

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COMPLETE CROP SERVICE
for greater net returns



by Stanley N. Gaunt*

It has been suggested that dairymen could save a lot of money by adjusting the protein content of their dairy rations downward to compensate for the fact that hay is generally being cut earlier and is thus higher in protein. Also, that dairymen could make greater use of urea in dairy rations — but that they have tended to resist this because of the possibility of nitrate poisoning.

First, it certainly is true that throughout the country dairymen are cutting their hay earlier and this means a higher protein content in that portion generally, but not on every farm. However, here in New England and much of the Northeast hay is making up a smaller portion of the roughage. There is a great swing toward feeding much higher amounts of corn silage; in fact, we have an occasional dairyman feeding corn silage exclusively.

Need for Balance

Feeding very little hay and high levels of corn silage will almost always require a 20 percent protein grain mix in order to balance out the ration. Of course, if seven pounds or more of early-cut legumes are fed, even with large amounts of corn silage, a 16 percent grain mix would be ample.

There are a couple of other situations in feeding where a high protein grain mix is needed. One would be when poor hay is being fed along with corn silage. A 1,300 pound cow producing 50 pounds of 4 percent milk a day, for instance, needs 3.2 pounds of digestible protein daily. Ten pounds of poor grass hay, 60 pounds of corn silage, and 15 pounds of grain containing 15 percent protein would supply only 3.04 pounds. Even this assumes that the hay was cut before July 1 — and, unfortunately, much of it

is cut later than this, and therefore is even lower in protein.

Another situation is where dairymen are short on hay but have an ample amount of corn silage. Many of these dairymen use low protein by-product feeds as a hay substitute because of the price advantage of such feeds as beet or citrus pulp or hominy.

Check Prices

Outside of these situations, a lower protein grain mix can be used to advantage if there is any significant price difference. With medium and early-cut grass hay and a medium amount of corn silage, a 16 percent ration is in order; with legume hay and/or corn silage, 14 percent; and with legume hay and/or grass silage, 12 percent; with straight legume hay a 10 percent grain mix.

Many times the dairyman who buys his grain mix finds that a 14 percent protein ration costs as much as a 16 percent, so in such cases there is really no economic advantage in dropping to the 14 percent ration. However, where you are able to grow some of your own grains, this can mean a real saving in the purchase of high protein feeds such as soybeans, which are more expensive. Usually a 20 percent protein grain does cost more, and so if a 20 percent is not needed one can save money here.

Needs Protein

It has been suggested by some that feeding more protein than is usually recommended would increase the protein percentage in the milk; but research indicates that there would be little change. However, if a cow did not have enough protein in her diet, or sufficient raw materials to make protein, her yield would drop. In other words, if she actually did get a protein-deficient diet, eventually

she would go dry in order to protect her body.

This situation hardly ever exists, but the important point is that milk yield will suffer to the extent that the ration is deficient in protein. Dr. J. T. Reid of Cornell has shown that the minimum amount of protein needed increases as milk production increases.

The more feed a cow takes in, the smaller percentage is absorbed. This is just as true of protein as of net energy. According to Dr. Reid, the amount of digestible protein used to produce one pound of 4 percent fat-corrected milk by cows producing the various levels is as follows:

4% fat-corrected milk yield (pounds/day)	Digestible protein needed (pounds/pound of milk)
10 to 20	0.040
21 to 30	0.048
31 to 40	0.058
41 to 50	0.057
51 to 60	0.061
61 to 70	0.063
71 to 80	0.066
81 to 90	0.068
91 to 100	0.070

These amounts do not include maintenance requirements. This runs from .65 pounds of digestible protein for a 1,000 pound cow to .98 for a 1,600 pound cow, with approximately equal amounts per 100 pounds increase in weight.

Underfeeding Limits Profits

In my opinion, the most limiting factor in profits in feeding dairy cattle is not due to protein adjustment but rather to underfeeding our high producers in energy, especially in early lactation; then throwing money away by overfeeding later on in the middle to the end of the lactation.

Here's an example of what one dairyman did: Lewis Muka of Leyden had a herd of 28 cows in

1961 which averaged 9,032 milk and 365 fat. He started to feed his higher producers better, and lead feed. The result was that in 1962 his average was 11,614 milk and 456 fat on 29 cows.

Then he did an even better job of feeding before calving and challenging them after. His 1963 herd average increased to 13,832 milk and 542 on 29.7 cows. In two years, 4,800 pounds more milk per cow and 139,200 for the herd! To those who say we already have a milk surplus, and therefore believe we shouldn't try to increase productivity, let me point out that this farmer lowered his cost per hundred pounds of milk as he stepped up efficiency.

Another Example

Here's another example: In the Hampshire County DHIA 1963 report, the top five herds averaged 38 cows and 14,562 milk, 4.01 percent, 583 fat. The lowest five herds averaged 72.1 cows and 8,905 milk, 3.78 percent, 336 fat. The big difference in feed was in the concentrates fed per cow — 5,959 pounds for the high herds and 3,239 for the low herds. Income over feed cost per cow for the high herds was \$441 as against \$235 for the low herds.

With only half as many cows, the high herds had about the same total income over feed costs as the low herds, and probably more profit, as there would be less labor with fewer cows. It is not just a case of feeding more grain, but of feeding the grain when the cows need it — as well as good breeding and care. It pays to get better

Save Money With Urea?

Urea can be fed to dairy cattle as a protein substitute. Dairy cattle are able to use it because bacteria in the paunch convert it into amino acids and protein. The protein is stored in the bacteria and becomes available to the animal as the bacteria are digested.

A readily-available carbohydrate (starch or sugar) must be present in the paunch. Urea is not used efficiently when fed with a ration (such as all-timothy hay) that is low in carbohydrates and protein.

The protein content of the grain mixture is increased 2.6 percent for each one percent of urea added to the mix. However, urea contains no energy, whereas conventional sources of protein — such as soybean oil meal — are also good sources of energy.

On a protein basis, one pound of urea can replace seven pounds of soybean oil meal, but to make up for the energy difference it would be necessary to add six pounds of a high-energy carbohydrate concentrate like corn meal. Thus, whenever the cost of this combination of urea and concentrate is less than for seven pounds of soybeans, this practice pays. However, urea should never supply any more than one-third of the total equivalent of crude protein in a grain mix. In fact, regulations of the American Association of Feed Control Officials require that a statement to this effect be included in the guarantee.

(Continued on page 28)

*University of Massachusetts

from the
HESS & CLARK
animal
health
center

YOU COULD SELL THIS MILK... IF *NEW* Medifuran was your mastitis treatment

Now you can use a mastitis treatment that lets you **sell milk 24 to 48 hours sooner**. Discard milk for only 48 hours after treatment. It's new Medifuran: The first new mastitis drug on the shelf in six years!

New Medifuran* already has proved its effectiveness in research tests and on dairy farms like your own.

Medifuran is based on a new nitrofurantoin, furaladone. It will not promote the build-up of drug-resistant bacteria and is effective against the major types of bacteria that cause most mastitis, including staph organisms.

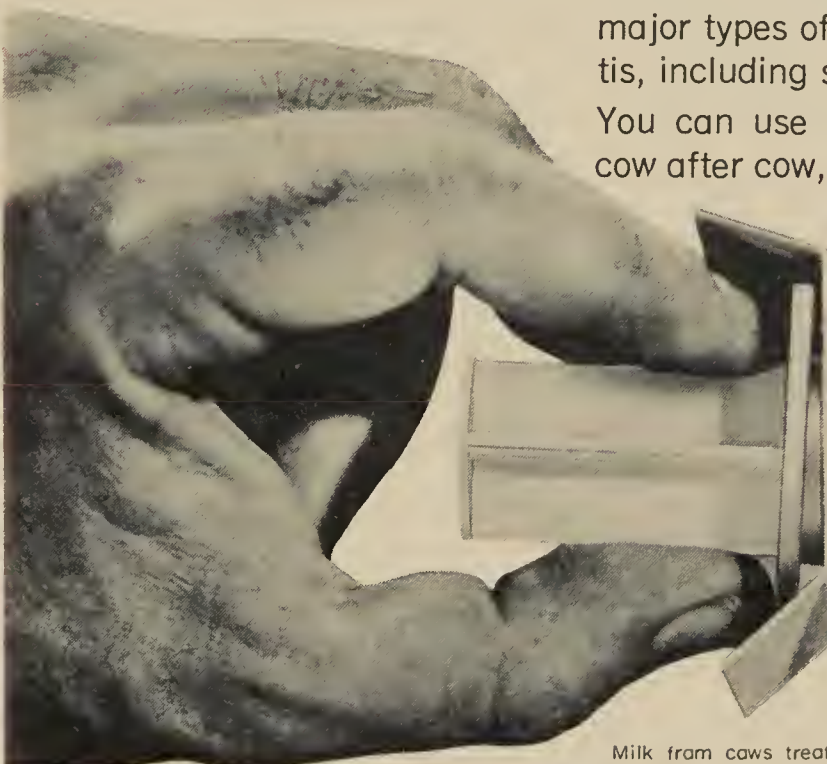
You can use new Medifuran time after time, cow after cow, and continue to get good results.

Important:

New Medifuran lets you start selling milk one to two days sooner. You only discard milk for 48 hours (4 milkings) after treatment. So the extra milk you sell more than pays for the slight extra cost of Medifuran . . . in fact, usually pays for the entire treatment!

Try new Medifuran. It probably comes closest to being the mastitis treatment you've always wanted.

M-5-2



Medifuran®

FOR MASTITIS

*Contains Valsyn, brand of Furaladone of the Norwich Pharmacal Co.

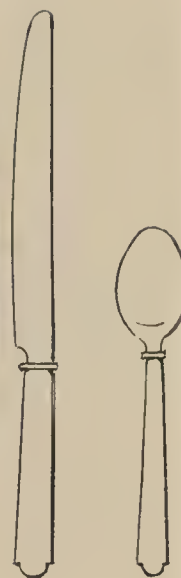
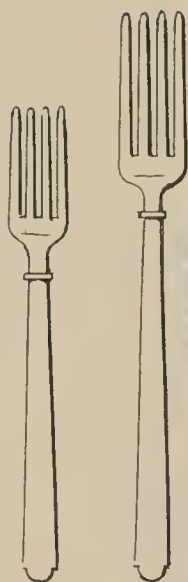
Milk from cows treated with Medifuran for mastitis should not be used for food during treatment and for at least 48 hours (4 milkings) after the last treatment.



HESS & CLARK
ASHLAND, OHIO

Is Your Alfalfa Feeding at The Second Table?

by Walt Griffeth*



MANY OF US have fond childhood memories of family get-togethers, when all the uncles and aunts, cousins and second-cousins assembled for feast and fellowship. At the Fourth of July picnic everyone sat down under the trees in the pasture picnic grounds to festive tables loaded with sandwiches, potato salad, pickles, iced tea, baked beans, deviled eggs, ham, jello, and dozens of pies and cakes. Each had an equal chance at all of the good food and came away over-filled.

By contrast, at the Thanksgiving feast the dining space was too small for all to sit at the same time. The menfolk ate first, while the women served the table and hushed the hungry horde of youngsters. When the second table was finally ready, the women and children served their plates from the food that was left. Plenty of food, but not quite the same as sharing in all the good things the first time around.

However, all were well fed and had enough and to spare. If food had been scarce, the children's needs would have come first, and all would have compassionately shared according to their needs.

Things are different in the plant world. Plants compete with each other for nutrients, and one may take up more than its share, leaving another kind of plant with an inadequate amount of the nutrient. Some plants even take up more of a nutrient than they really need; this is called "luxury consumption." Both of these conditions — one plant being more efficient in absorbing a nutrient than another and "luxury consumption" — are two problems in alfalfa fertilization.

"Luxury Consumption"

The potassium requirements are about the same for the grasses and alfalfa generally planted in combination. When the supply of available soil potassium is high, both types of plants may absorb $1\frac{1}{2}$ to 2 times the amount necessary for growth. This is not a serious problem when soil potassium is in good supply, but it is a problem on low-potassium soils.

Grasses are usually able to take

more potassium from the soil than the associated legumes, and may thrive while the legumes starve for potassium. In other words, grasses eat at the "first" table, legumes like alfalfa at the "second".

Some Experiments

Research at Cornell several years ago illustrated this relationship. In experiments with grass and Ladino clover, the grass was able to obtain enough potassium from the soil long after the potassium supply became too low for the Ladino clover to survive. This work also indicates that grasses are stimulated by nitrogen fertilization or by the nitrogen produced by the legumes. This increased growth of the grasses removes potassium from the soil at the expense of the legume.

Apparently, there is a basic difference in the nature of legume and grass roots. At low-potassium levels legume roots take up large amounts of calcium and relatively small amounts of potassium; the grasses take up more potassium and less calcium. When moderate to high amounts of potassium are available, though, legumes are able to meet their potassium requirements for sustained growth.

Fertilization Important

Recommendations for fertilization of hay and pasture crops in the Northeast usually call for an annual application of potassium except when soil tests show high soil potassium levels. Annual applications are preferred over heavier, less frequent fertilization because of that "luxury consumption" I mentioned.

Large applications may provide more plant nutrient than is needed for one year, then result in a shortage of potassium in later years, especially for legumes such as alfalfa. For similar reasons, some states recommend split applications of potash fertilizers on sandy or other soils very low in potassium. Here fertilizer must supply nearly all of the potassium needed for plant growth.

Winter Injury

Legumes suffering from a shortage of potassium are more susceptible to winter injury because of the role played by potassium in the

proper storage of carbohydrates. Potassium is essential for the conversion of the first simple products of photosynthesis into sugars and starch and in the transfer of these carbohydrates to the different parts of the plant.

The benefits of annual topdressing of potassium on alfalfa and grass-hay mixtures have been proved by tests at many locations in New York and other states.

Cold Resistance

Researchers at the University of Maryland found that potassium fertilization caused larger, deeper and more uniformly distributed roots of alfalfa and orchardgrass; it also increased the carbohydrate content of alfalfa roots. Increased levels of carbohydrates and potassium salts in the liquids of the plant roots reduce their freezing temperature, similar to adding antifreeze to the radiator of your car or tractor.

On a test area in Orange County, New York, in 1959-60, fertilization with potassium increased hay yields, but did not overcome the detrimental effects of either cutting too frequently (5-week intervals) or at the wrong time. A three-cutting harvest schedule with no late fall cutting (that would prevent the legume from storing "winter food") produced 5.4 tons of hay the second year. In every case, inadequate potassium or more severe cutting practices caused a loss of yield. Cutting every five weeks during the season, combined with adding no potassium, reduced the yield to 1.3 tons per acre.

Potassium Principles

Of the primary nutrients in soils essential for plant growth, potassium is usually the most abundant — many New York soils contain from 10,000 to 50,000 pounds of total potassium per acre in the surface eight inches. However, the total soil potassium content is not a reliable indicator of the amount available to plants.

Soil potassium exists in water-soluble, exchangeable, and non-

exchangeable forms. The water-soluble and exchangeable forms can be considered as available to plants, but the degree and rate of availability of the non-exchangeable potassium vary enormously among soils.

The quantities of soluble and exchangeable potassium are inadequate to supply needs of continuous cropping, so the available quantity must be replenished by release from the non-exchangeable form — or from fertilizers. The capacity of the soil to release the non-exchangeable potassium has been termed as its "potassium supplying power" and is considered as a characteristic of a given soil type.

Soils differ greatly in their ability to supply potassium year after year to forage crops. Low potassium-supplying soils release enough potassium to grow not over $\frac{1}{2}$ ton of hay per acre per year; medium soils enough for about $1\frac{1}{4}$ tons, and high-supplying soils enough for two to three tons of legume-grass hay.

For yields larger than these, extra potassium must come from manure and fertilizers. Fertilizer recommendations for forage crops should take into account the potash-supplying power of the soils and the requirement of the crop to be grown.

At Cornell, we recommend topdressing legumes with 200 pounds per acre of 0-20-20 on high potash soils, 200 pounds of 0-15-30 per acre on medium, and 267 pounds of 0-15-30 on low potash-supplying soils. If yields go to 4 to 6 tons per acre, these recommendations should be increased by 50 percent. A soil test and your county agent's advice will tailor applications to your specific conditions.

An annual application of recommended fertilizers is the preferred practice on most alfalfa fields in the Northeast. The only exception might be when the potassium level of the soil is already high and the soil has a high potassium-supplying power; or on sandy soils where potassium might be applied two or more times per year.

*Department of Agronomy, Cornell University, Ithaca, New York



the new Agway:

how Pakatakan Triune Artis produced 1226 lbs. butter fat and 33,584 lbs. milk

She's a big cow. She's got the breeding. She's got the type. She inherited the capacity to be a champion.

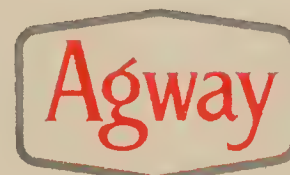
But to produce 1226 fat and 33,584 milk in 365 days she had to be managed right, and fed right.

Owner Hugh Sutherland, Chapel Bank Farm, Delhi, N.Y., manages his high producing herd of 40 registered Holsteins according to the principles embodied in Agway's Profit Feeding

Plan. (Last year's DHIA records for the Sutherland herd: 653 fat and 18,015 milk.)

You may or may not have a potential 33,000 lb. producer in your herd. (Research has proved, however, that most modern cows can produce 15,000 lbs. or better.) But you will not know what your herd can produce until you challenge your cows with a good management plan and a good feed.

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DAIRY FEEDS & SERVICES

COLD WEATHER STARTING

by WES THOMAS



NO MATTER WHAT the capabilities of an engine, it's useless if you can't get it started. It usually isn't too difficult to "get by" during warm weather, but cold, sub-zero weather presents a real test for any starting system. In practically all cases, however, there are several products, systems or arrangements to help ease the problem.

Some Choices

The availability of satisfactory starting methods is a major consideration, especially for diesel tractors that must be started in sub-zero weather. Some diesel tractors are available with small gasoline-powered starting engines. The gasoline engine, in turn, can be started with the usual battery-operated electric starter. For dependable starting in extremely low temperature conditions, this is probably the most reliable arrangement. Additionally, this arrangement permits you to "motor" the diesel engine and get the lubricating oil circulating before opening the throttle to start it.

The main disadvantages are the extra cost of the gasoline engine and the extra time required for the two-step starting procedure; and providing two fuels for one tractor is often an inconvenience. In warm weather operation, the required two-step starting usually takes somewhat longer than direct starting on diesel fuel alone.

Other Arrangements

Diesel tractor manufacturers who do not have the auxiliary engine starting arrangements available for their tractors usually provide other arrangements for assisting the direct cranking operation. For example, some tractors can be equipped with a 24-volt starting system; extra batteries are required to furnish the necessary power. Others may include glow plugs in the cylinders, or heaters in the intake manifold, powered by the battery. Or they may be equipped with an arrangement to introduce an easily-vaporized fuel, such as ether, into the engine during cranking.

At best, however, all of these "starting aids" tend to be less reliable and more inconvenient than the separate gasoline starting engine.

Field Installation

There are several starting aids available for use on existing tractors, cars, and trucks; in all cases,

however, the engine should be in tip-top mechanical condition. These aids are not a substitute for good maintenance—they are a supplement to it for unusually cold starting situations. Essentially, there are three basic types of assistance—easily-vaporized fuel, auxiliary heat, and additional cranking capacity. No one engine should require more than one type of assistance, except in very unusual situations.

Easily-Vaporized Fuel

Some form of ether is introduced into the engine in all cases, though the exact method varies widely. Liquid ether poured into the air cleaner or manifold from a can or a gelatin capsule has several disadvantages. Fire hazard from careless handling is a primary danger; also, the ether is not broken up into small particles, and it's difficult to control the amount used.

For best results, the ether must be introduced into the engine in an atomized or vaporized state. During very cold weather starts, some engines will die during "warm-up" unless the fluid injection is continued for several minutes, and then gradually reduced.

The aerosol spray can help meet these requirements. The simplest arrangement consists of spraying the ether into the air cleaner intake. On some tractors, two persons are required for this, because of the distance between the starting controls and the air intake. With an aerosol spray, it's generally an easy job to adjust the amount of ether during engine warm-up. The right amount is just enough to prevent stalling; an over-supply raises cylinder pressure and can damage rings or pistons.

A slightly more elaborate rig provides a mounting bracket for the can and a tube to carry the ether to the intake manifold. Some arrangements mount the can within reach of the operator; others provide a cable control to the valve which can be operated while the engine is cranked.

A non-pressurized can of ether is used with one version of the permanent installation. A control knob, within reach of the operator, operates a plunger to pump the ether into the engine during starting and warm-up.

Most of these devices use 110-volt AC power to supply heat through the crankcase oil, or through the cooling system. One arrangement, however, uses the regular fuel of the engine to op-

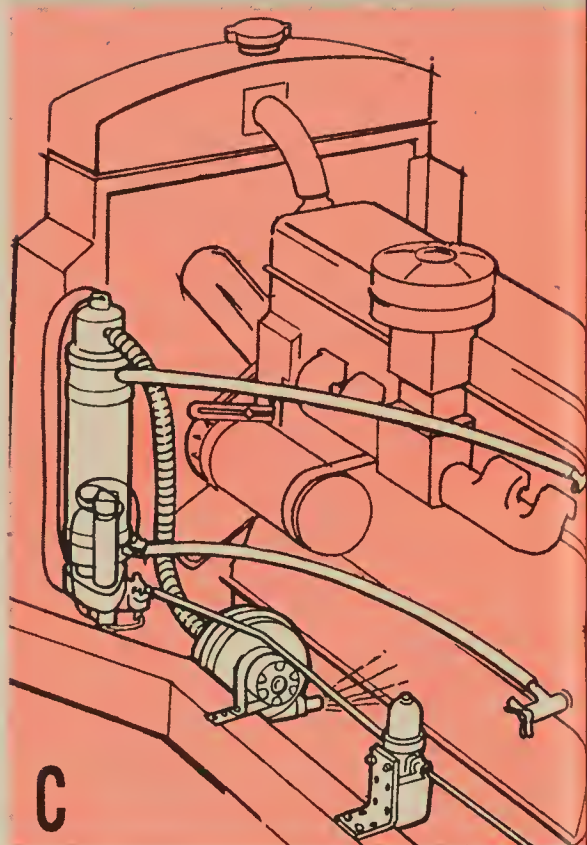
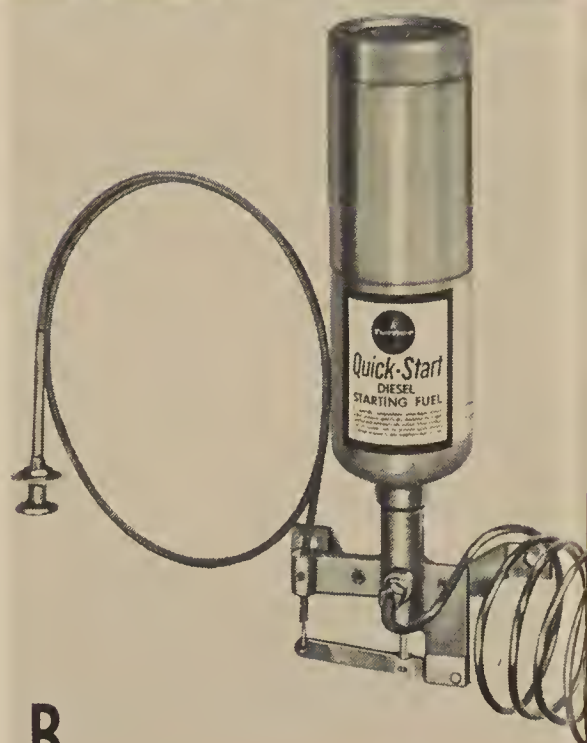
erate a hot-water heater hooked into the cooling system of the engine. The electric heating units can be grouped into two general classifications—low and high capacity.

In general, the low-capacity units should be connected while the engine is warm from operation. Then they help keep the engine from becoming as cold as the surrounding air. Most of them are immersion-type electric heating elements. They replace the dip stick, one of the freeze plugs, or one of the head bolts. In each case, a convenient connection is provided for attaching the extension cord from the power outlet.

The high-capacity external tank units can raise the engine temperature enough to permit easier starting if the unit is turned on an hour or two before trying to start the engine. These units are essentially a small hot water heater connected into the engine cooling system; a thermostatic control is necessary to prevent overheating.

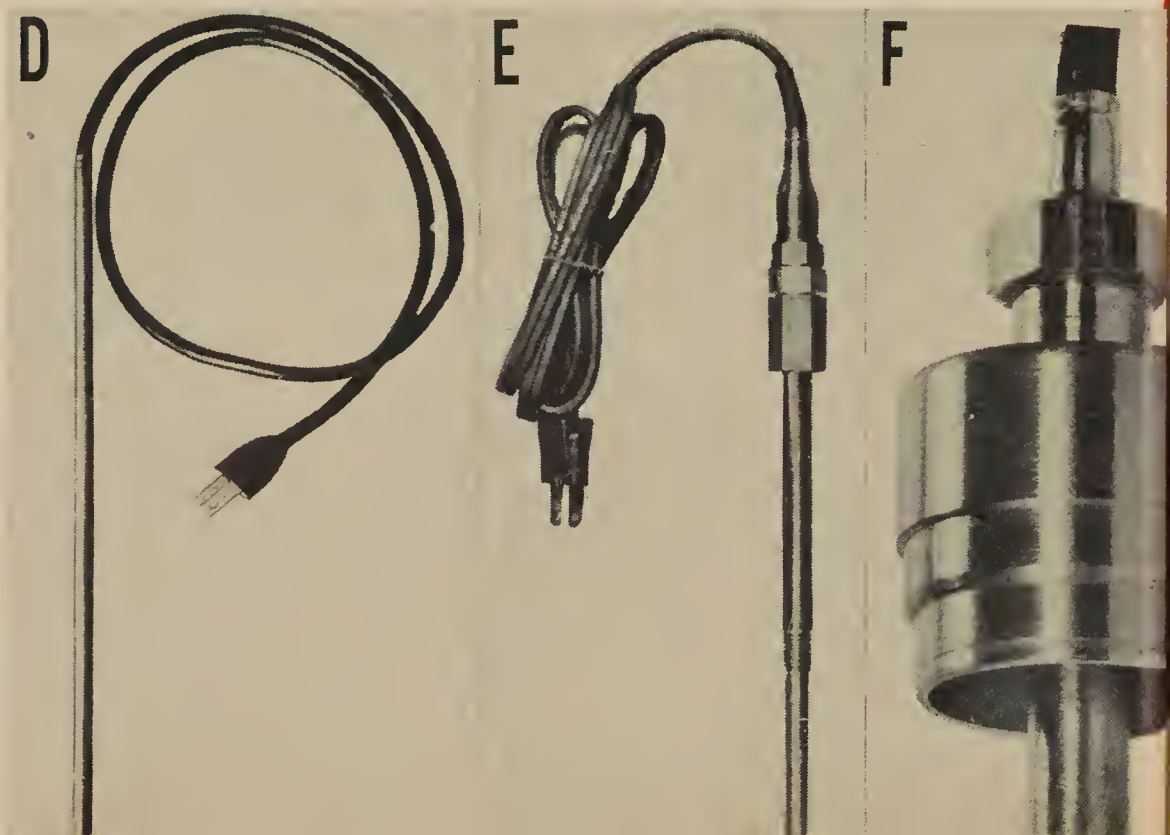
The external tank units are also available with burners which use the regular engine fuel. This type heater is somewhat more complex, but it does have the advantage of being able to maintain the correct cooling system temperature even during light load or idling operation of the engine.

(Continued on next page)



Ether should be introduced into the engine in a vaporized state. Aerosol can be used to spray ether into the air-cleaner intake, (A). Remote control cable permits the operator to control ether injection while operating the usual starting controls. (B). Tank-type heater is basically a hot-water heater connected into the engine cooling system. (C). This unit burns the regular engine fuel. Some variations of this basic arrangement use an electric heating element supplied from 110 volt AC power instead of the burner to supply the auxiliary heat.

Low-capacity, immersion-type electric heating elements help keep the engine from becoming as cold as the surrounding air. These units are substituted in place of one of the regular engine elements: dipstick, (D); headbolt, (E); freeze plug, (F).



If one battery won't start an engine in cold weather, a second or "booster" battery can be used. Quickly-attached jumper cables are needed for the hook-up. The second battery must be kept well charged in a warm room until it is taken out to be used. At zero degrees Fahrenheit a battery has only 40 percent of its normal cranking power. This reduced capacity, plus the extra "drag" of the cold oil, is the primary cause of many starting difficulties.

An inexpensive trickle charger can be connected to the battery overnight. As its name implies, this device charges a battery at a very slow rate, but during a period of ten or twelve hours can restore a significant portion of the cranking power of a battery. And, equally important, the flow of current through the battery helps keep it warm. The trickle charger also provides a convenient means for keeping the extra booster battery at full charge.

Ideally, the voltage of the booster battery should be equal to that of the engine to be started. However, if both 6-volt and 12-volt engines are in use, it is usually inconvenient to provide two booster batteries. In practice, the 12-volt booster battery can be used in either case if proper precautions are observed.

Twelve Volt

For a 12-volt system there's no problem. Just attach the jumper cables so that the terminals are connected positive to positive, and negative to negative. Then use the

starter in the regular way.

For a 6-volt system, ground the same terminal of the booster battery as is grounded for the 6-volt battery. In most cases this will be the negative terminal — but some manufacturers use a positive ground connection. Then, with the ignition switch "on," connect the opposite terminal of the 12-volt battery to the starting motor terminal. The extra voltage will spin the engine faster and aid the starting process. Be sure to disconnect the booster battery as soon as the engine starts.

If the engine doesn't start after a few seconds cranking, don't continue to "grind" the starter. The low temperature of the starting

motor permits it to withstand the increased voltage for a short time. But prolonged grinding will burn out the starter.

Other means of increasing cranking capacity include an electric heating plate installed between the battery and the battery holder. This 110-volt heater simply warms the battery to maintain its normal capacity. A special starter is also available which has an internal gear reduction that increases starting torque.

Conclusions

There are several things that should be considered in selecting a starting aid. For example: how low are the winter temperatures in

your area; how many of these extremely cold days do you normally have each winter; how many of these will the vehicle in question be used; how convenient is the device; and what is its relative cost? The more expensive — but also more convenient systems — would be justified if you plan to use the vehicle on many extremely cold days. Conversely, for occasional use during a few cold days, the less-expensive, less-convenient systems would be satisfactory.

Grief is the agony of an instant; the indulgence of grief, the blunder of a life. — Proverb



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Biggest new-machine news of the year!

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At last—a 3-in-1 haying machine that offers top operating economy! New Holland's new Haybine® mower-crusher mows, conditions—even windrows (with optional windrow shields). ■ Ideal for haying operations, haylage, silage. Tackles toughest crops—even extra-tall hybrid sorghums. You'll zip through fields at speeds up to 8 m.p.h.; cut a swath almost 9 feet wide. ■ Want to know all the details? Head for your New Holland dealer right away! ■ New Holland Machine Company Division of Sperry Rand Corporation.

NEW HOLLAND

"First in Grassland Farming"

The following firms are listed as manufacturing starting aids. We cannot guarantee that the listing is complete, nor are we familiar with all of these firms. The list is merely for your information.

Five Star Manufacturing Co.,
P.O. Box 149, Clarksdale, Miss.

Electric tank-type heater
Head-bolt heater
Frost-plug heater

M & W Tractor Products, Anchor,
Ill.

Special starter with internal
reduction gears

Phillips Manufacturing Co., Inc.,
8200 Grand Avenue S., Min-
neapolis, Minn.

Ether-injection pump
Electric tank-type heater
Head-bolt heater
Frost-plug heater
Dipstick heater

Spray Products Corp., P.O. Box
1988, Camden, N.J.

Pressurized ether cans —
hand-held or permanently
mounted

Thermo-Temp Industries Inc.,
7700 Second Blvd., Detroit,
Mich.

Tank-type heater, uses engine
fuel

Turner Corp., 821 Park Avenue,
Sycamore, Ill.

Ether-injection pump

Edwin L. Wiegand Co., 7500
Thomas Blvd., Pittsburgh, Pa.

Electric tank-type heater



"There's your One-Ninety, Bill-between the D-21 and the D-15!"

Down by the station early in the morning, a flatcar full of farm power makes a pretty sight. Whether they come by rail or highway hauler, you've got to look fast to see Big Orange tractors in town like this. They're riding a one-way ticket to productivity, and in the next few days they will be rolling over the countryside, working the soil. Bill here has been itching to take command of that great all-new One-Ninety, the one that



does more work with less effort than any 5-bottom tractor ever did before. He can see himself up on that contoured seat, right hand resting easy on the unique *console control*, with the long low hood in front and *day-long fuel tank* at his back—master of a tractor built to go! No wonder Bill's down to meet the train just ahead of the neighbor who's getting delivery of the other Allis-Chalmers Big Orange brute—the massive, high-production, acre-

hungry D-21 at the rear of the car. The 7-plow giant that runs a full 8 tons of muscle without an ounce of fat. The giant D-21 and the all-new One-Ninety are both big machines to make big farming profitable. But every tractor shown here, the versatile 4-plow D-17 and the hustling 3-plow D-15, too, was built by The Tractor People to help make more money for farm people. We think one of them is bound to be *your* tractor!

ALLIS-CHALMERS • THE TRACTOR PEOPLE • MILWAUKEE, WISCONSIN

New Developments in MILK INSPECTION

by Hugh Cosline

DAIRYMEN HAVE BEEN CONCERNED about milk inspection ever since it was started. That concern should be quickened at present because of increased interest in many quarters, and because of the possible effect of new regulations on the dairy industry.

There are at least three reasons why you as a dairyman should keep aware of new developments. First, because of your own individual markets, which can be temporarily lost by failure to meet requirements. The second reason is the wider market for all northeastern dairymen, with particular consideration about competition from other areas. And third, there is the matter of fluid milk consumption, which surely is affected by milk quality and, to a degree, milk quality is affected by inspection.



RICHARD MARCH

In order to get the latest information on the subject, I visited with Professor Richard P. March of the dairy department at Cornell. I asked many questions, and I am sure the answers are of interest to all northeastern dairymen.

National Milk Sanitation Act

First, I asked Dick about the status of the National Milk Sanitation Act proposed in Congress, but which is not being pressed at the present time. Northeastern dairymen have been concerned that passage of this law would open up markets to midwestern milk, which they consider inferior in quality.

"In my opinion the proposed National Milk Sanitation Act is not the answer to our problems," said Dick. "For one thing, the proposed bill doesn't require a sediment test or a test for mastitis. Northeastern dairymen feel that these two requirements result in a cleaner, more sanitary, healthier milk supply."

"I have heard some comment about the revision now being prepared by the U. S. Public Health Service," I said. "What can you tell me about it?"

"This Public Health Service Code has been revised twelve times; the present code is dated 1953, is now being revised, and should be available some time in 1965. This Public Health Service Milk Ordinance and Code has not as yet been accepted by New York and other northeastern states, with the exception of New Hampshire, the reason being that milk inspection was underway in many northeastern states before the U. S. Public Health Service put out the first code.

"In a few respects," Professor March added, "this Code is more strict than New York's regulations; in some respects New York State regulations are more demanding."

"Do you feel that this Public Health Service Code is a good one?" was my next question. "Who is revising it, and how are they proceeding?"

"Yes, I feel it is a good code. The Public Health Service representatives are making the revision — but they are asking for comments and suggestions from all interested parties over the entire country, and are considering them very carefully. New York and the rest of the northeastern states have already submitted many comments. For example, the second draft of this latest revision would have required cooling of morning milk to 45°F. But as a result of opposition to this requirement, the presently proposed interpretation is that morning milk need not be cooled if it can be delivered to the plant within two hours; if not, then it must be cooled to 50°F.

"New York State at present requires the cooling of night's milk to 60°F. However, I am sure that cooling milk to 50°F will be required sooner or later. Bacteria multiply fairly rapidly at a 60° temperature, so this is too high a temperature for the proper storage of milk."

Milk Inspection

"Let's go back a little," I said. "I'd like to ask you a few questions about milk inspection as it is now carried out, especially in New York. I have heard a lot about overlapping inspections and the resulting annoyance to dairymen."

"There's not as much overlapping as is sometimes thought," answered Dick. "There is a reciprocal agreement between the New York State Department of Health and the New York City Health Department. The State usually accepts the City department's inspections — but the City department doesn't always accept the



PHOTO: USDA

State inspections!

"Both the New York State and New York City Departments of Health inspect the dairy plants, and they spot check the dairy farms. Each plant must have a fieldman or other representative to routinely inspect the dairy farms. The health departments spot check the work of these fieldmen.

"Our neighboring states send milk inspectors into our state to check our plants and producers, and we in turn send inspectors into our neighboring states. But I think we are moving towards reciprocity; but first we must attain uniformity of inspection.

"Then there is the physical inspection of dairy herds. New York City requires four physical checkups of herds for dairymen who have bulk tanks, and one inspection is required by New York City and New York State for all dairymen who use cans. New York City permits a monthly modified Whiteside test of each producer's bulk tank milk in lieu of the four physicals. This is a test for 'abnormal milk.'

"The physical checkup is primarily for mastitis, but the vets also watch for other diseases. The physical inspection is well done in some areas, while in others, unfortunately, it is pretty much a paper report."

"How could this be improved?" was my next question.

"By substituting the modified Whiteside test, which I have just mentioned. This would be an inexpensive and easy test run at the plant. It detects milk from cows suffering from mastitis even when there may be only one such cow in a herd.

"Formerly, the deck man at the milk-receiving plant watched for odors, particularly in warm milk, and a good man claimed that he could detect milk from cows suffering from mastitis. Now that milk is cooled, and much of it comes in tanks, it is not so easy.

"No good dairyman wants to send milk to a plant from mastitis-infected cows, but in the early stages the disease is difficult to detect. If dairymen individually and through their organizations

would push for the modified Whiteside test it could very easily become standard practice. A sample of the milk which is delivered would be tested; if there was a positive reaction the dairyman would be notified and helped to correct the situation, possibly to the extent of applying the Whiteside test or other simple screening test to each cow, or even to each quarter of each udder. Also, dairymen should watch for mastitis by the daily use of the strip plate."

"You mentioned voluntary action rather than a Federal law as desirable," I commented. "Is any progress being made?"

"Yes, right now there is a voluntary cooperative State-U.S. Public Health Service Program for certification of interstate milk shippers. Any dairy company can have its plant and the producer farms supplying the plant rated from a sanitary standpoint in terms of degree of compliance with the Public Health Service Milk Ordinance and Code. These ratings are published (with the permission of the dealer) in a quarterly Federal publication. The rating of supplies helps the movement of milk in interstate commerce, thus increasing our market for fluid milk. A number of New York companies are already on this Interstate Milk Shippers list, and many more dairy plants are being qualified.

Must Meet Requirements

"Then there is the Interstate Carriers Program. There is a Federal requirement that milk and dairy products served on airplanes, buses, trains and ships that cross state lines must be purchased from dealers who meet the requirements of the Public Health Service Milk Ordinance and Code. Any dealer or cooperative with a plant that sells milk or dairy products to public interstate carriers is subject to this inspection and approval, and by January 1, 1966, all dairymen delivering to these plants must meet the requirements.

"So, this is really not a voluntary program if one wants to sell

(Continued on page 30)



**Announcing new Alfatox.
It's the nearest thing yet to a "perfect"
alfalfa insecticide. Here's why:**

New Alfatox* is the nearest thing yet to a "perfect" alfalfa insecticide because it controls weevils and practically every other insect known to attack alfalfa. And new Alfatox won't give you milk or meat residue problems if you wait just seven days after spraying before feeding treated alfalfa or clover to livestock.

You can spray new Alfatox and be sure of dependable control of alfalfa weevils, even strains which have developed resistance to other insecticides. This is especially important because resistance to other insecticides is spreading and there's a good chance you'll be faced with hard-to-kill weevils this year.

You can also depend on new Alfatox for unbeatable control of aphids, spittlebugs, leafhoppers, grasshoppers . . . and just about every other insect threat to alfalfa. One insecticide, that's all, and you've solved your alfalfa insect problems.

Remember, you can avoid a residue problem in milk or meat by using Alfatox. Just wait seven days after spraying before you graze livestock or cut treated alfalfa for green chop or hay.

So keep close check on alfalfa weevils during the larval stage, when they are most destructive. Spray Alfatox before the first cutting, when $\frac{1}{3}$ to $\frac{1}{2}$ of the plants show some damage.

If reinfestation occurs after the first cutting, spray Alfatox directly on the stubble. This will usually prevent damage from weevils and other insects up to the time you make your second cutting.

That's what makes Alfatox the "near-perfect" insecticide. Control of practically every insect that attacks alfalfa, including resistant strains, and no milk or meat residue problems. No protective clothing or devices needed when you apply Alfatox.

Ask your supplier about new Alfatox or write us for full information.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

*Alfatox is a trademark of Geigy Chemical Corporation.

Geigy
CREATORS OF CHEMICALS FOR MODERN AGRICULTURE
Alfatox



A view of Brockway's 34 x 246 ft. barn and the four silos which are filled with corn each fall for a nearly 9-months feeding period.

ONE REASON Randall Brockway uses all-silage roughage at his Hobart, New York, farm is because he has experienced two barn fires in the past few years. When he built a fireproof concrete block one-story barn in 1960, he decided that he would put nothing in it that would burn. Today he uses no hay for roughage, depends upon corn silage for nearly nine months a year, grass silage the other three.

The cows are kept in tie stalls in the barn during the daytime, and he uses a 5-on-a-side herringbone milking parlor. Owner-sampler records show that his herd average ranges between 13,000 to 14,000 pounds of milk and over

500 pounds of fat for his 100 milkers.

"Our production seems about as good as when we used hay," says Brockway, "although it's difficult to compare precisely since our herd is considerably bigger now.

"On the other hand, we feel it doesn't have to be quite as good because we don't have as much investment in machinery and equipment... not as much labor. We don't have a rake, a baler or other piece of haymaking equipment on the farm."

Brockway's program is to put up grass silage in the summer and feed it out till fall. About when grass silage is used up, it's time to

put in corn silage. He usually plans to put up enough corn silage to fill four silos — three 14 x 30 footers (which he had before the last fire) and a new 24 x 50 footer.

About 85 pounds of silage per cow are fed daily. When feeding corn silage he uses a grain ration of 20 percent protein; with grass silage he uses a 16 percent protein feed. On summer nights the cows are let out on pasture, which is principally meadow grass or other native grass.

The first winter after Brockway had his new barn he put his cows on half corn silage and half grass silage. He prefers using only corn silage, however, and that has been the schedule during the past two winters.

Good Corn Practices

With all the emphasis on corn silage, Brockway would be expected to grow some good corn... and he does. He has qualified for Agway's 100 bushel-16 tons corn club in past years. In 1964, when many of his Delaware County neighbors were not especially proud of their corn crops, Brockway harvested a good-looking crop.

Heavy fertilization and chemical weed killer he believes in strongly. He puts on plenty of manure both from his own farm and from a next-door chicken farm. Then he adds 300 to 400 pounds of 10-20-20 fertilizer per acre through the planter. He found Atrazine weed killer (used at the rate of 2½ pounds per acre) especially im-

portant in the summer of 1964 when every speck of available moisture was needed for the corn.

Brockway used four or five corn varieties that matured well in 1964, and stepped up the plant population to 28,000 plants per acre... a difficult feat in a dry year.

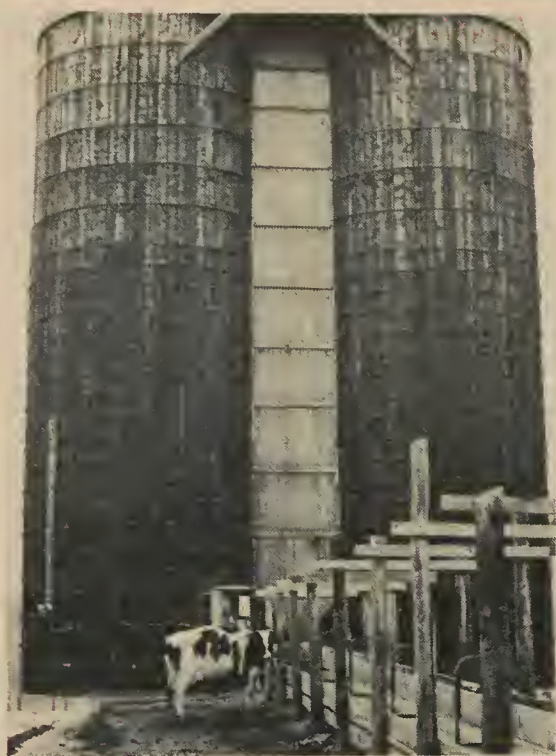
The all-silage roughage program has had a good test at the Brockway farm with three years of actual application... and Randall feels it has worked especially well for him. One good indication is that he is putting in a second 800-gallon tank in the milkhouse. The previous winter it was necessary for the milk truck to pick up milk every day when he had only the one 800-gallon tank.



Randall Brockway stands alongside a load of corn silage which is about to be put in the 24 x 50 ft. silo.

ALL-SILAGE ROUGHAGE

by Bob Cudworth



Corn silage is fed by auger from these 16 x 45 foot silos fall and winter... haylage in summer.

"I'VE FOUND I can feed corn silage as my only roughage and have results comparable to when I feed hay and silage, or hay alone," says A. Jay Mott, dairyman from Shickshinny, Pennsylvania. "Knowing this gives me a flexibility in my feeding program, and I can take advantage of whatever crops have done best during the year."

Three years ago (in 1961) the Mott farm had an especially dry year, and almost no hay. The corn did well, however; so he

decided to feed what hay he had to the heifers and give the cows only corn silage as a roughage. "I could see no drop in production," said Mott; "in fact, it seemed to help the test. In 1964 some individual tests were as high as 4.4 and 4.5 percent butterfat. We have some high testers, anyway, for Holsteins."

4 Percent Average

Mott has averaged over 4 percent butterfat with his registered Holstein herd for the past four years. For the year ending September, 1964, his DHIA records for 42 cows were 13,029 pounds of milk and 535 pounds of fat.

When he feeds all corn silage with his feed auger from the silos he plans on his cows getting about 60 pounds each per day. He has to feed a little more protein in his grain, of course, so he uses a ration that measures between 18 and 20 percent protein... going as high as 30 pounds per day to his top producers. The ration is a combination mix of 22 percent mash feed and 14 percent pelleted feed.

With two large 16 x 45 foot silos, Mott puts up haylage in the summer and corn silage in the fall. He feeds out the haylage June through September; corn silage through fall, winter, and spring

... then feeds out the remaining haylage at the bottom of the silos for a couple of months in the spring.

Jay feels that haylage is an excellent feed, far better than green-chop, because it keeps production at a more consistent level. "They seem to come up in milk on haylage," he commented. "For example, we had some first calf heifers that started on corn silage in the fall, producing about 46 pounds of milk per day. We put them on haylage in February and, as it worked out, kept them on it for nearly eight months. They were still producing at 40 to 42 pounds per day when we dried them off."

For Ten Years

The Mott family has been on the present farm for ten years. Seven years ago Jay set up loosehousing and a 4-unit milking parlor, so he could handle his herd more efficiently. Then in 1962 he put free stalls in the loose housing barn... thinks it was one of the best moves he ever made.

He also found that using sawdust as bedding in the free stalls costs him only about \$70 per year, whereas the straw bedding in the loose housing setup was running about \$700 yearly. In addition, his cows are cleaner, and he has less bedding to move about, he

points out.

Manure handling has been simplified considerably. With a blade on the tractor Mott scrapes manure from the paved free stall holding area and barnyard into a dry manure pit which is 40 feet wide by 12 feet wide and 8 feet deep. It will hold several weeks' supply. With this arrangement, he can spread manure when it best fits his work schedule.

Since Mott has almost completely a "zero pasture" setup (the cows get on a small nearby pasture principally for exercise) he depends on plenty of fertilizer to keep his yields high. And when the rainfall is sufficient, it has paid off well for him. He has upped his yields of alfalfa and timothy to about 4½ tons per acre. On corn, he uses about 700 pounds of fertilizer per acre — part at plow down and part with the planter.

In 1964 his corn lacked moisture, and he put in only about a third as much corn silage as usual — but his hay crop was good. So he plans to feed about 8 pounds of hay daily and drop down to 50 pounds of corn silage per cow. Jay feels that a flexible feed program is the sensible approach... even when it means going to all corn silage. He likes high production per cow, but is also conscious of labor efficiency and net income.

American Agriculturist, February, 1965

any weather? right!

New Idea Flail Spreaders handle any manure... loose or frozen, sloppy or hard packed!

Makes no difference to New Idea patented Flail Spreaders what condition the manure is in. Just load 'em and go. Flail Spreaders have weighted, sharpened, free-swinging steel hammers that pulverize *any* manure in *any* weather. Manure is thrown *down* to the ground, not up into crosswinds.

Sloppy manure? No problem; there are optional hydraulic endgates for these spreaders. They keep high nitrogen liquids inside the spreader 'til you get to the field.

Two sizes — 160- and 130-bushel (that's the 160-bushel shown below). Like all New Idea Spreaders, the sides and bottoms are made of wood, which years of experience and

exhaustive tests has proved to us to be the most resistant to manure acids. We use clear yellow pine, treat it with a preservative, then spray it with hot paint. Result: a quality box that can't rust, peel, or rot!

That's a brand-new New Idea Loader in the picture. Radically improved, it has the power and performance you want in a farm loader. It's ruggedly built with mechanical bucket control and the tine bucket can be quickly converted to dirt or snow bucket. You'll like its low price, too. See these, and other fine machines at your New Idea dealer today. Or write: New Idea, Coldwater, Ohio.



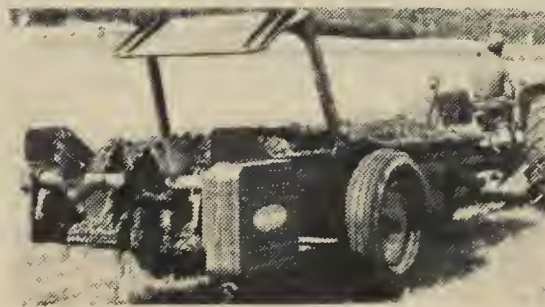
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Single or tandem axle. 180-bushel cylinder/paddle giant comes with single or tandem axles. With tandems, four wheels share the load, provide better flotation on soft fields.



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Single Beater Spreader. 12 scientifically designed paddles slice manure fine, hurl it in wide uniform pattern. Hydraulic endgate retains semi-liquid manure. Available in 125- and 155-bushel sizes.

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Good Dealer*

NEW IDEA

**where bold new ideas
pay off for
profit-minded farmers**

SIGNED A NOTE LATELY?

What's happening — and likely to happen — in farm credit? Here are some answers.



by Earl Butz*

NOTHING IS MORE erroneous than to think of agriculture as a declining industry. American agriculture is expanding in every important respect except one — the number of people required to run our farms.



Earl Butz

Our agricultural plant uses each year more capital, more science and technology, more managerial capacity, more purchased production inputs, more specialized marketing facilities, and more research than the

year before. It is obvious, therefore, that those writers and analysts who refer to agriculture as a "declining" industry look only at a single phase of this growing and important American industry.

Big Business

Although a smaller share of our total population is engaged directly in farming, the agricultural industry is big, broad and basic. Of 70 million people employed in America, about 26 million work somewhere in agriculture. Seven million of these work on farms, eight million produce goods and services purchased by farmers, and 11 million process and distribute farm products. Hence, over one-third of all our employes are engaged in agriculturally-related work. These are jobs important to everyone — jobs with personal and financial rewards.

Strong Agriculture

The declining trend in farm population, although viewed with alarm by some politicians and rural fundamentalists, is itself a sign of a strong agriculture. This is the age of science and technology in American agriculture. Brainpower has replaced horsepower as the essential ingredient on our farms. Total U.S. agricultural output has increased two-thirds in the last two decades, while farm workers have gone down some four million. This means that production per worker on our farms has doubled in the

*Dean of Agriculture, Purdue University

last 20 years, a remarkable increase in production efficiency. It can be matched by no other major sector of the American economy.

Agriculture In Revolution

Agriculture is in the midst of a far-reaching scientific and technological revolution which is shaking the very foundations of its traditional patterns. It is changing from a way of living to a way of making a living, from a business of arts and crafts to a business undergirded with large amounts of capital, science and technology. There are five fundamental characteristics of the current agricultural adjustment which affect the use of capital in agriculture:

1. An individual, during his working life, finds it tougher all the time to accumulate the capital required to finance a farm business big enough for modern farming. This will become increasingly true in the decades ahead.

2. Management has become the key factor in profitable farming. This is in sharp contrast to a generation or two ago, when the farm family was much more self-sufficient than now, with much less capital involved, with much less science applied, and with many fewer critical management decisions to be made.

3. The trend toward larger and fewer commercial farm units has been pronounced during the past decade; it will accelerate in the decade ahead. All the power of government and politics can't stop it — nor should it.

On the other hand, we will also likely experience an increase in the number of noncommercial farms with farm sales less than \$2,500, particularly within driving range of industrial centers. This group includes part-time farmers and part-retirement farmers. Numbering about 1.2 million units, the group has, in the main, nonfarm sources of income that often exceed farm income.

4. The commercial farm will be more like a manufacturing plant, with the manager assembling "packages of technology" which have been produced by others on a custom basis. The share of total farm receipts spent for production items will increase still further, the gross margin per dollar of receipts

will become narrower, and profits will depend increasingly on growing volume.

5. The process of "Rurbanization" will accelerate. Rural and urban people are intermingling in countless communities within commuting distance of industrial centers.

Implications Of Change

The implications of these changes may be grouped under three general headings:

First, there will be growing pressure on the combination of owner-manager-operator all wrapped up in one man on the farm.

We have departed from this pattern in the majority of other major businesses of America. Time was we had many family foundry shops, tailor shops, bootmakers, corner grocery stores, and yes, even automobile assembly plants. These have given way, in the main, to larger units with more capital, with higher levels of management, and more specialization of labor.

Generally, when such changes have occurred, opportunities for profit and for higher levels of living have increased for owners, for managers, and for workers. Some individuals were hurt in the adjustment; but on the whole, society gained.

Many family commercial farms today have a total capital investment exceeding \$100,000. It's not necessary to dwell at length on the difficulty of passing such a unit intact from father to son, without pausing at least to catch one's breath as he passes the tax collector.

Moreover, if the son has to face the prospect himself of getting on top of this kind of capital, perhaps by paying off two or three other heirs in the family, he may choose to spend more of his current income in living, and less in saving, than his father before him chose to do. This means that he will be not only willing, but anxious, to enter into some kind of financial arrangement whereby a third party puts up some of the capital, or perhaps becomes a financial partner — perhaps on a permanent basis — at the time of the father's death.

An ability to manage well is even more difficult to pass from

father to son than is accumulated capital. A generation or two ago, son could apprentice under father and take over the family farm, provided son had strong muscles and a willingness to work hard. These things are no longer enough — the limiting thing now is managerial capacity.

It is equally true that fathers don't necessarily breed vocational preference into their sons. With the growing tendency for farm youth to be educated beyond the high school, many farm-reared youngsters will have their vocational preference tipped away from the "three-in-one" farmers their fathers were. They may prefer to train themselves for a position as manager, manager-operator, or part-owner-operator, with some "integrator" supplying part of the capital and part of the management, or for some combination of these.

The second implication of the changing times is that our typical system of fee simple ownership by individual operators will be under increasing pressure.

Family Ownership

The typical cycle of farm ownership and operation under our present system of fee simple ownership by individuals is essentially the life cycle of an individual. Most of our farms need to be rather completely refinanced each generation. But still more important,



with the process of refinancing usually comes a shift in management and operation, which is seldom accomplished without considerable disruption of the farm as a going concern. This disruptive process in transfer will increase as the size of unit grows, as financing becomes more difficult, and as it becomes more important to have a farm big enough to be efficient.

Industry has met this problem by having divisible shares of ownership, allowing the passing of ownership from one generation to the next without disrupting management or operation. This permits the accumulation under single management of units so large as to be beyond the capacity of the ordinary individual to accumulate in his productive years, and yet large enough to have the advantages of a big outfit. The pressure is in this same direction in

(Continued on page 34)

American Agriculturist, February, 1965

Do you work the haying in between cultivating the corn, or the cultivating in between the haying?

You can't be cultivating corn and harvesting forage at the same time. But, sure enough, your corn usually needs cultivating about the same time your forage is right for the first cutting.

Either you have to neglect one crop for a while or you have to eliminate one job. A broadcast spray of Atrazine 80W herbicide can eliminate the need for cultivating your corn because Atrazine controls most annual broadleaf weeds and grasses . . . for the entire growing season.

You can spray Atrazine at planting or after planting, until weeds are about 1½ inches high. Rainfall moves Atrazine down into the weed root zone, where it is absorbed by weed roots. Keeps weeds and

grasses under control from planting right through to harvest.

Spraying Atrazine to grow clean corn saves you time, labor and equipment for other farm jobs. And it helps boost your corn yield two ways. Your corn gains the moisture and soil nutrients which would have been taken up by weeds. And you save corn feeder roots from being pruned by the cultivator.

Think Atrazine will work for you? Sure it will. For full details, just contact your local supplier or custom spray applicator . . . or write us.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.



OVER THE PAST nineteen years, since the beginning of the American Agriculturist Foundation Award Project in the high schools of the Northeast, a good many generations of students have been proud to earn this Award. It stands for excellence in classroom work and, even more important, for all-around achievement as citizens of their schools and in their communities.

The interest exhibited by teachers and principals is most heartening. They are quick to notice when one of their students "catches fire," and to help him along.

We are well aware that not all of the boys in vocational agriculture are going to be farmers. We also know that there are very few occupations today that are not in some way connected with agriculture, and that a grounding in agricultural knowledge and skills stands anyone in good stead.

We have always wished it were possible to publish all of the fine reports and letters we receive in connection with the Foundation Award. That being impossible because of space limitations, we do the best we can by picking out some representative samples for this article. In a later issue, we will run a complete list of all winners reported to us.

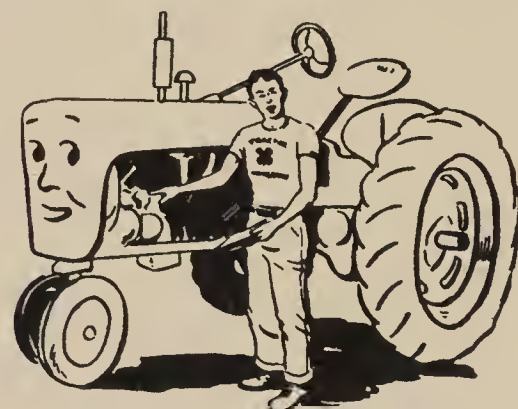
Vocational Agriculture

Rockville (Connecticut) High School nominated Calvin Myers for the 1964 Foundation Award. Calvin's father has 50 acres of

nursery stock, and Calvin has \$750 invested in the farm. After he completes his studies at the University of Connecticut he will go into partnership on the home farm.

Gene Theriault, Caribou (Maine) High School, had a farming program of potatoes and beef during his four years in vocational agriculture. During 1964 he bought a 90-acre farm and planted 60 acres to potatoes. He is now married, and settled down to full-time farming.

At North Harford (Maryland) High School, Pylesville, Norman Cochran was picked for the American Agriculturist Foundation Award. His teacher, Mr. Cooper, says that Norman has always been willing to take on responsibilities that provide for leadership development. His home projects were in calves, pigs and chickens, and he had extensive experience, also, in working on a dairy farm.



Charles Pell, Interlaken (New York) Central School, has carried a very, very busy schedule.

It's not possible to list all of his activities, but he did manage to win both a silver and a gold award in the Farm Management problem at Cornell's mid-winter Youth Science Program for two years; he placed in the welding contest at Morrisville and at Trumansburg Fairs. He worked on dairy farms in the area for farm experience, and at a garage for practice in mechanized skills.

Charles Roll, Jonathan Dayton (New Jersey) Regional High School, Springfield, plans to go into the family florist and garden center business. As a freshman he planted a thousand chrysanthemum plants. The following year he put in another thousand mums and 500 azaleas. In his junior

year he went one better, adding 1,500 yew plants to the mums and azaleas... and managing also to buy a tractor and accessories. He is majoring in floriculture at Cornell University.

Writing about Wayne Houghton, winner at Ellicottville (New York) Central School, E. W. Jedrzejek, his teacher, says: "Wayne is the outstanding senior in the Agriculture Department. He is especially interested in dairying... his main attribute is his ability to foresee and do jobs coming up, so that he has everything planned ahead."

Despite the tragedy of losing both his parents, Tom Erkenbeck, Fayetteville-Manlius (New York) School, has forged ahead. He has

been busy in the Future Farmers, has worked hard to maintain an A average in agriculture, and has been active, also, in church and scouting. "His efforts," says his teacher, Carroll Rudd, "have pushed him into a position of responsibility and leadership."

The choice at Jamaica Plain (Massachusetts) High School fell on James W. Howard. James took his summer placement training on a large dairy farm in Vermont for two summers, and another summer was spent on the famous Cherry Hill Farm in Beverly, Massachusetts. He is now attending the College of Agriculture at Amherst, Massachusetts.

In South Lewis (New York) Central School, Turin, an exception

was made in presenting the Award to a student after only one year of vocational agriculture. Charles Young, Jr. had had no previous opportunity to study the subject. He was enrolled in Agriculture I and Agricultural Mechanics II as a senior, and made such a fine scholastic record (besides his activity in FFA and his good farming program) that he was chosen for the Award.

Herbert H. Baum, teacher of vocational agriculture at Warwick Valley (New York) Central School, speaks warmly about Stephen Morgiewicz, this year's winner in his school. He says: "Stephen is the outstanding boy in our chapter; he has the respect and admiration of all who know him. ... It's a real plea-

sure to watch a boy grow and develop character traits of integrity, honesty, concern for others, and loyal devotion to his chapter and all others with whom he works."

Harold Griggs, winner at Chester (Vermont) High School, is actually a resident of Keene, New Hampshire. His high school did not offer the vocational agriculture course, so Harold, who has a deep-rooted interest in agriculture, transferred to Chester. He found a farm where he could get his practical experience... and in addition to his vocational agriculture work he took the college preparatory courses which enabled him to be accepted at Vermont Technical Institute at Randolph.

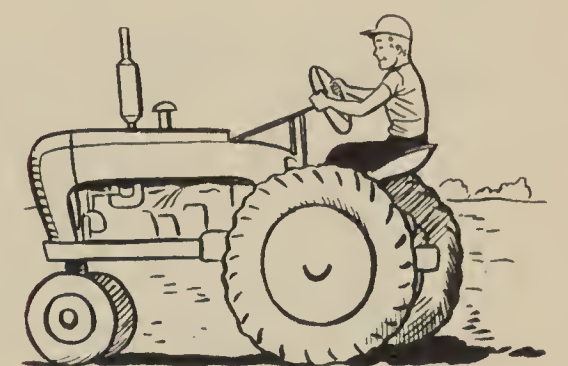
It is heartening to see that love of the land which will "out" by some means or other. There are a surprising number in the 1964 student group who with no family connection with farming yet found ways to work on farm projects.

Equally interesting is the amount of capital that many of the boys acquired from their farm projects. For example, Bob Goodridge at Andover (New York) owns 8 cows, 10 heifers, and some equipment. Franklin Bienick, Boonville (New York) Central School, has 20 purebred Holsteins which he cares for along with the home farm herd. Vaughn Sherman, Dryden (New York) Central School, owns 8 purebred Holsteins, and has an income from his cows after grain costs are de-

ducted from the value of the milk produced. His farm work offsets the cost of raising the heifers.

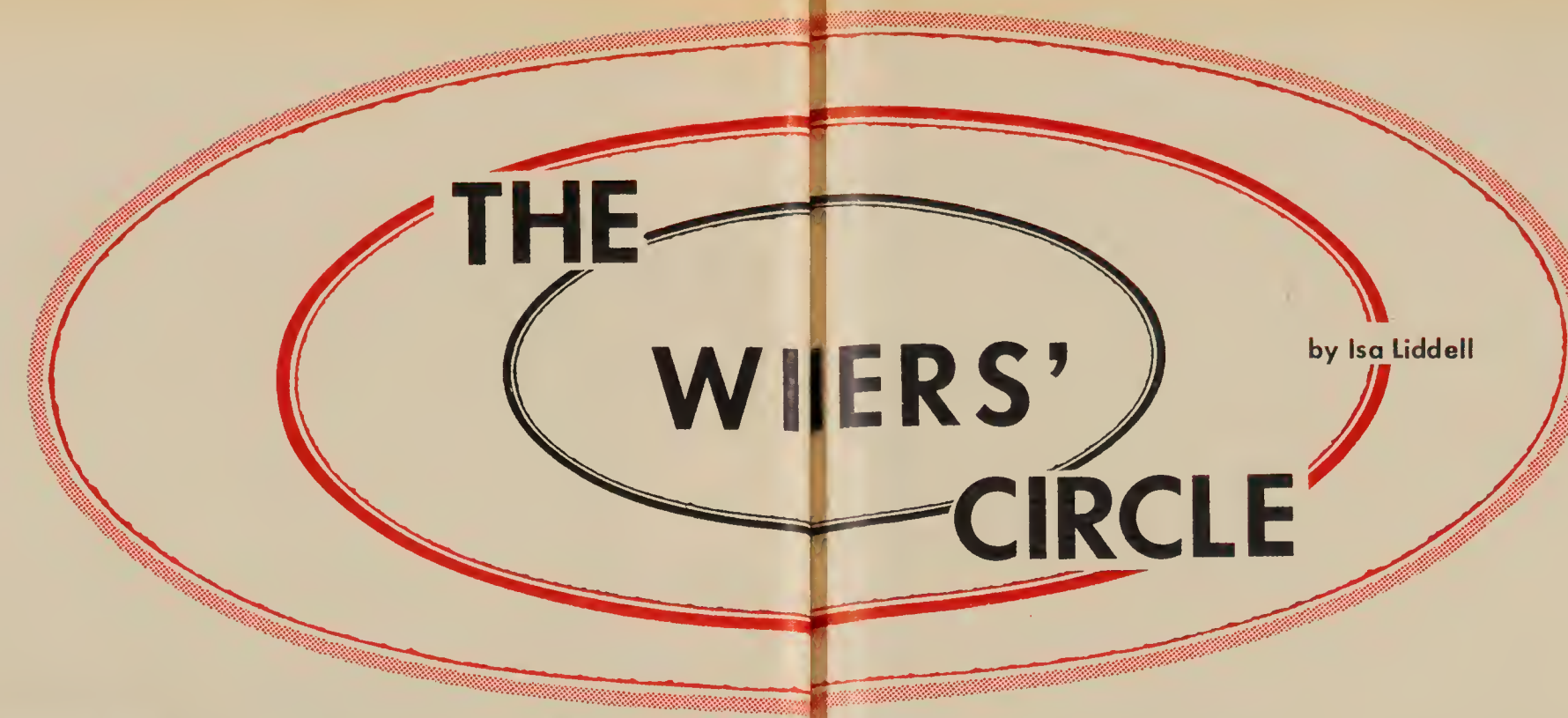
Raffael Aversa, joint winner at Townville (Pennsylvania) Consolidated High School, has held many responsible offices in both local and county FFA, including the presidency of the local chapter. He has been awarded the Keystone Farmer degree, and was the Pennsylvania Star Dairy Farmer of 1964.

Also active in FFA and school activities is Roy Ehrart, the other boy chosen for the Award at this school. His teacher, Lowell W. Edminster, says: "Roy's school work and manners are all that one would like to see developed in our American youth."



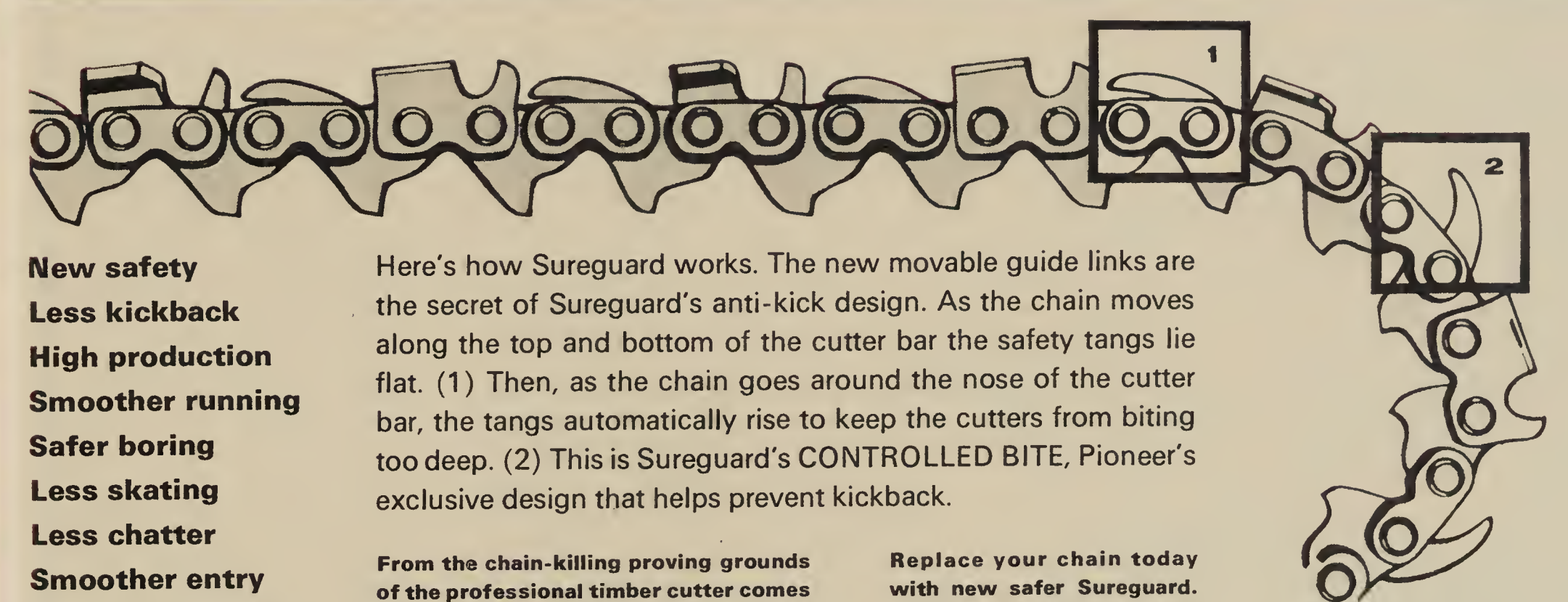
An interesting and unusual situation developed with Harold Brewer, Whitney Point (New York) Central School. Harold had no home farm opportunity, so he worked for a neighbor, a young GI, who worked off the farm part-time and paid Harold to work for

(Continued on page 22)



At last! The chain that revolutionized wood cutting is now available from Pioneer

NEW PIONEER
Sureguard
ANTI-KICK CHAIN
with exclusive Controlled Bite!

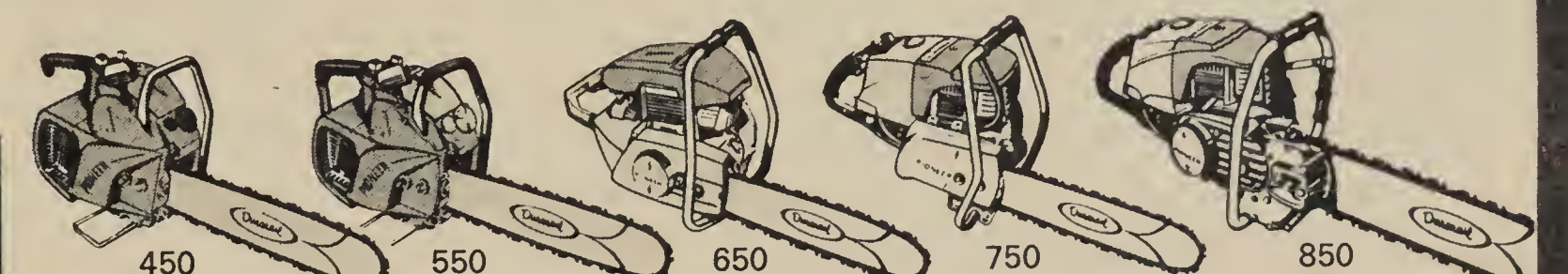


New safety
Less kickback
High production
Smoother running
Safer boring
Less skating
Less chatter
Smoother entry
Reduces bouncing
Reduces climbing

Here's how Sureguard works. The new movable guide links are the secret of Sureguard's anti-kick design. As the chain moves along the top and bottom of the cutter bar the safety tangs lie flat. (1) Then, as the chain goes around the nose of the cutter bar, the tangs automatically rise to keep the cutters from biting too deep. (2) This is Sureguard's CONTROLLED BITE, Pioneer's exclusive design that helps prevent kickback.

From the chain-killing proving grounds of the professional timber cutter comes Pioneer Sureguard. It's the chain that was born and bred for top production cutting, and now it's available for all Pioneer Chain Saws. Try Sureguard at your Pioneer Dealer's soon!

Replace your chain today with new safer Sureguard. If your saw is due for replacement be sure to see one of these new Pioneer Chain Saws. Sureguard now available at your Pioneer dealer.



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Thanks to the superior strength and density of modern non-woven fabrics, KENDALL non-gauze Milk Filters don't need that costly extra layer of gauze which is too coarse to filter milk and merely holds the filter material in place.

Cut rising production costs, protect quality, and make more profits on your milk by switching to KENDALL. KENDALL Filters deliver all the speed you'll ever need. They're tough, uniform, with no thick spots to clog, no weak spots to tear. They cannot wash or channel. They've got extra capacity to handle large quantities. KENDALL makes disks, squares, socks, tubes, strips, rolls. Send for valuable free samples today.



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Get All-Purpose Ointment USED BY VETS

Help avoid udder trouble with FAST-HEALING, medicated Bag Balm. Loaded with soothing Lanolin. Smooth-spreading, stays on. Useful for injuries, snags, chapping, windburn, sunburn. Great for massage of caked bag. Good for home injuries, too. Handy 10 oz. can or convenient 5 lb. Pail, at all Dealers'.

DAIRY ASSOCIATION CO., Lyndonville 11, Vt.

Winners' circle . . .

(Continued from page 21)

him. The GI decided to sell out and go to college, and on January 1, 1964, he sold Harold (aged 15) his herd of 24 head (18 of them cows) and his equipment.

Arrangements were made for Harold to assume payments of \$95 per month, with the former owner still responsible since Harold is under age. Harold also pays \$50 a month rent for the farm, where his father, mother, sister and brother live with him. His father is in poor health, but is able to help considerably with the farm work.

Harold is very interested in registered Jerseys, and his objective is eventually to own a breeding and show herd of 50 registered Jerseys, and a larger farm. His teacher feels that he has set himself a man-sized goal, but that he has an excellent chance of reaching that goal the way he is going about it.

Conrad Frennier, Ellenburg (New York) Central School, Ellenburg Depot, has 10 head of purebred Jerseys, \$600 invested in machinery, and a total net worth of \$5,180 in cattle, insurance value, and cash in hand. Ronald Ball, Falconer (New York) Central School, has 18 head of registered dairy cattle, and had a grand champion Jersey at the Chautauqua County and Erie County fairs. Ron is in demand as a dairy cattle judge, has won many awards, and in the summer of 1964 accompanied 35 other New York FFA Empire Farmers on a People-to-People Goodwill Agricultural Mission to seven counties of Europe.

Robert Kline, Goshen (New York) Central School, has done much in the area of farm mechanics repair maintenance and construction. He has built up his equity in farming, and now has 10 dairy animals valued at \$3,000.

At the Juniata Valley High School, Pennsylvania, Daniel Knodel is the owner of 17 registered Holsteins. His dairy herd project won a gold medal in the Pennsylvania State FFA Project Contest in 1963.

Vocational Homemaking

Vocational homemaking sets high standards, and its graduates are well-poised, well-groomed young ladies, ready to take their places as good homemakers and good citizens of their communities. Here are the achievements of some of these young ladies who were chosen for our American Agriculturist Foundation Award last year:

Mrs. Marion L. Loomis, homemaking teacher at Palmer (Massachusetts) High School, writes of Carol Czepiel: "Carol has accomplished a great deal in homemaking in all of our units of child care, foods and nutrition; her work in clothing has been outstanding. She is dependable, cooperative, and emotionally stable." Carol's

plans include entering Computer IBM in Springfield, Massachusetts, after graduation, and furthering her homemaking education in Extension work.



Ann Guynn, Mt. Airy (Maryland) Senior High School, was chosen for the high quality of her work. Her teacher, Mrs. Betty Ann Whitfield, reports that Ann could always be depended on for extra effort and pursuit of additional knowledge. During the summers Ann took care of her baby brother so her mother could work. Now she is studying at the Lutheran Hospital of Nursing — for which she won a three year scholarship with full tuition — and plans on entering the Peace Corps. In her letter to us Ann wrote: "I want to make the most of my years in school, and try to become a worthwhile citizen."

Conscientiousness, perseverance, interest and enthusiasm in her class work . . . her popularity with both faculty and students . . . brought Gayle Ann Mattice election as Queen of the Junior-Senior Prom at Avoca (New York) Central School. She was also chosen American Agriculturist Foundation Award winner. Her citation says that "she contributed greatly to the morale of the entire department by her cooperativeness and capable help wherever needed."

At Oyster River (New Hampshire) High School, Patricia Jones made tremendous strides in the past three years. She is reliable and trustworthy, with a developed sense of responsibility.

Claudette Lappin, the winner at North Plainfield (New Jersey) High School, has an outstanding ability to get along with others, and to handle classroom situations in an intelligent manner. Claudette is going to train as a beautician, a profession in which her decided artistic ability will be a big asset.

Eunice Hillsgrrove, Alton (New York) Central School, has a busy schedule both in and out of school. Her mother is out at work, and Eunice helps by cooking, washing, getting meals, and doing housework for the family. Before school each day she gets breakfast for a neighboring family of four children, and gets them off by bus. After school gets their supper, and stays with them until their parents get back from work. With such experience, there's no doubt that Eunice will do well in the practical nursing training she plans for.

"An expert in human relations . . ." that is how Principal Parry of Cato-Meridian (New York) Central School described Vivian Campbell, Foundation

Award winner in the homemaking department. And her teacher, Mrs. Jean Thomas, is equally enthusiastic about the fine qualities Vivian has exhibited in her classroom work and in school and community activities. She was voted by her classmates the most outstanding Home Economics student!

Although her parents moved from Hartford, New York, two years ago, Myrtie Gardner chose to remain at Hartford Central School and continue her homemaking courses. For room and board she worked in the homes of a minister and the principal. She finished as the senior with the highest average in three vocational homemaking courses. Myrtie's future plans are to gain her college education through service in the Women's Army Corps, which she entered last September.

A bout with polio in her sophomore year made it necessary for Sandra Rothra, Mayville (New York) Central School, to drop homemaking for that year. But she went right back, and did outstanding work. As Mrs. Geraldine Steward, homemaking teacher, says: "It has taken courage, perseverance, and many wins over inner battles to become the fine girl she is today."

The homemaking department at Damascus (Pennsylvania) High School has made much use of American Agriculturist recipes and patterns. Sandra Spaulding was chosen for the Foundation Award. Sandra has had consistently good grades in homemaking, has been president of the FHA, and supported herself by working summers.



Susan Ladue, Sherburne (New York) Central School, has lived in city, small town, and on a farm. Moving to the farm was a big change, but she loves the outdoors and animals, and enjoys being "chief cook and bottle washer" for her father and mother. She hopes for a career in dietetics.

At Trumansburg (New York) Central School Nancy Bush had the highest average in homemaking in 1964. Home experience with a five-year-old led her to make up an "Idea Book" of resource material used in the homemaking department. It has proved very helpful for baby sitters with this age group.

At Central High School, Providence, Rhode Island, a hearing loss did not stop Sandra Swartz from producing work of "A" quality. Her teacher says she has shown a wonderful adjustment both mentally and physically, and also socially; and has become a most efficient homemaker.

American Agriculturist, February, 1965



"That seat is tops . . . sure a lot less tiring."



"My '3020' Tractor has just the right horsepower and capacity for the heavy work on our farm."

**"I make a lot better time
on any job
with John Deere Power Shift."**

A Pennsylvania dairyman reports:

Clyde Heller of Lancaster proves the truth of that old saying: "If you want to get a job done, give it to a busy man." Mr. Heller milks 40 Holsteins . . . grows alfalfa hay, wheat and corn on his 105-acre farm. Above and beyond that workload, he serves as Secretary-Treasurer and Superintendent of Roads for East Lampeter township . . . teaches a Sunday School class . . . is assistant treasurer of a scale company . . . and is an active partner in a farmers' market. In his spare time, he has become a crack shot on the target range and on deer hunts. Through Clyde's wide range of interests, his six sons were introduced to their career interests. Could any father be more richly rewarded for his efforts?

"We have over 200 hours on the '3020' with Power Shift and, as far as I'm concerned, it is 100 percent satisfactory. I make a lot better time on any job with the Power Shift Transmission. We have stepped up our work to third, fourth, and fifth gears with it. Most of the time we use fourth gear (3 to almost 5 mph), but we can move up or down on-the-go as field and crop conditions require a change.

"Under average plowing conditions in sod, we can plow easily in fourth gear. On the previous tractor, third gear was best for similar conditions. We make a lot better time, too, at the ends of the field. I can reduce speed with the flick of a finger . . . without clutching . . . and devote my full attention to the headland and a safe turn.

"In PTO work, Power Shift certainly is easier on the tractor. If the going gets tough, I just slip into a lower gear and move ahead knowing that I'm maintaining proper PTO speed at all times. My '3020' with Power Shift and live PTO handles our PTO spreaders, side-delivery rake, and hay baler

in a very satisfactory manner. It handles baling smoother than any other tractor power I have tried."

In all seriousness, could you say as much for your tractor as Mr. Heller says about his '3020'? Even if your tractor is performing "good as new," you're missing out on the effort- and dollar-saving advantages of Power Shift . . . beefed-up power through drawbar, hydraulics, and PTO . . . possibly even the advantages of Power Steering and Power Brakes (which are standard equipment on the '3020'). Right now, before the crop year starts, arrange with your John Deere dealer to test the advantages of a Power Shift Tractor . . . 65-h.p. * '3020' or 91 h.p. * '4020' . . . on your farm. With your dealer's handy financing plan, you can put one of these profit-boosting tractors from The Long Green Line on your place this year. *Diesel model

JOHN DEERE

Moline, Illinois



Exclusive!

Only a Cornell **Blue Ribbon Barn Cleaner** features the drive chain with short **Round-Oval Link** design. What does it mean to barn cleaner efficiency and economy?

Round-Oval Links shed manure and urine better, prevent corrosion. Each link is formed, not riveted. No crevices . . . nothing to work loose. Special short length prevents jamming, and breakage, minimizes link wear.

Only a Cornell adds all these "blue ribbon" advantages: non-slip, double-tooth drive sprocket / two-inch drive paddle to prevent manure pile-up or roll-back / exclusive reverse corner idlers or slide for greater adaptability optional. Install a Cornell barn cleaner . . . or convert your present installation. Write for complete data today.

Also distributors of Vandale Silo Unloaders.



CORNELL
MANUFACTURING COMPANY
Dept. C • Laceyville, Pennsylvania

After New England A NORTHEAST MILK POOL?



A HISTORIC DAY in federal milk regulation in New England was marked on October 1, 1964. On that day the four federal orders regulating markets in Greater Boston, Worcester, Springfield, and Southeastern New England were combined into one regional order called the Massachusetts-Rhode Island Order. Thus, an idea originally introduced nearly 30 years ago . . . a New England-wide pool . . . became a reality, or should we say, "almost a reality." Connecticut still maintains its own market pool. But for how long?



Chester W. Smith

Since 1933, when Boston had the only market-wide pool, a New England-wide pool has been a topic of conversation in the milk industry, and in 1947, when the author worked as an economist for operating cooperatives in the Boston market, they developed a New England-wide pool proposal and asked for a hearing. Their petition was denied, but their proposal was remarkably similar to the Massachusetts-Rhode Island order now being adopted.

Created Incentive

Market-wide equalization for only the Boston market . . . one of several large, densely populated metropolitan areas in Southern New England . . . created an incentive for the other markets to jockey their milk supplies so that the regulated market would carry their surplus. This maneuvering enabled producers in the unregulated markets to enjoy higher prices at the expense of producers in the regulated Boston market. For the same reason, Southern New England milk dealers located outside the Boston marketing area were able to secure cheap milk supplies when they could buy milk for their Class I sales from out-of-state producers in Northern New England at the Boston blend price.

While the market-wide pool in Boston served a very worthwhile purpose by stabilizing milk prices

in New England, it was vulnerable to these abuses which soon led to more federal regulation. Producers shipping to Fall River, Massachusetts, found that they too needed a federally-regulated market-wide pool . . . and they got one. Next, the Lowell-Lawrence market got into trouble with cheap out-of-state milk supplies. They tried to solve their problem with a federal order which provided for individual handler pools. These never worked well and after a few years, Lowell-Lawrence, along with Haverhill, was added to the Boston market-wide pool.

Problem Milk

The problem of cheap out-of-state milk also led to the establishment of separate market-wide pool orders in Worcester and Springfield in 1950. And in 1959, the old Fall River Order, which had been converted to individual handler pooling without success, was absorbed into a new regional market-wide pool, covering all of Southeastern New England, including the entire state of Rhode Island, plus Fall River, New Bedford, Taunton, all of Cape Cod, and the intermediate towns. Also in 1959, another market-wide federal order pool was established for the entire state of Connecticut.

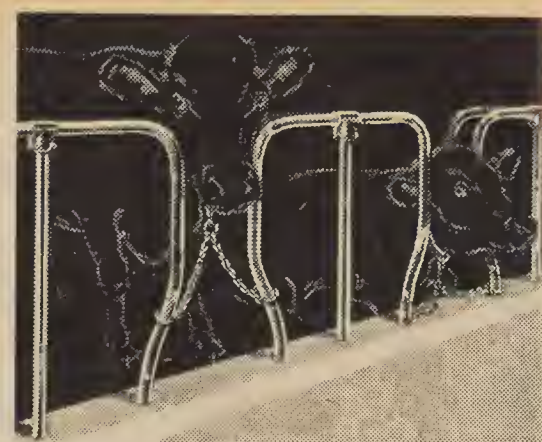
While these separate orders were being issued in an effort to catch up with unregulated milk and "pool riding" which were a chronic threat to the success of the Boston pool, big changes were taking place in the marketing of milk. More and more city dwellers were moving to the suburbs. More families bought cars, and as more and better roads were built, people began living farther and farther from their jobs.

Shopping centers and supermarkets followed the people to the suburbs, and milk dealers were forced to follow their customers to their new homes. Supermarket shopping and a preference of consumers for milk in paper containers resulted in a big change in milk buying habits . . . away from doorstep delivery of milk in quart bottles toward supermarket buying of milk in half gallon and gallon paper containers.

These changes in consumer buying habits caused milk markets

* Economist, Mutual Federation of Independent Cooperatives, Inc.

(Continued on page 43)



Berg Cow-Saver Tie Stall automatically takes up slack in the tie chain so it can't entangle and trip a cow when she gets up or lies down . . . frees her movement when she stands.

How to Compare Cow Stalls

Cow stalls look a lot alike. This is because you can't see inside. Laboratory tests show that Berg copper-bearing steel stalls resist corrosion by barn acids. This helps to give them many times the life of ordinary steel cow stalls. Berg lever stalls, with sure-stop stanchions, lock and unlock individually or altogether. They save time when used with a milking parlor. New Berg Cow-Saver tie stalls are ideal for use with a pipeline milker. These stalls are so different that Berg has patented their exclusive cow-saving design.

EVERYTHING FOR BARN



Stalls, stanchions, steel pens, ventilation, water bowls—Berg builds everything for barns. Contractor-dealers make fast, expert installation.

FREE PLAN HELP

BERG EQUIPMENT CORP.
Marshfield, Wisconsin (AA-2-A)

Send me information about:

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| ☐ Barn Cleaners | ☐ Stalls and Stanchions |
| ☐ Ventilation | ☐ Cow-Saver Tie Stall |
| ☐ Steel Pens | ☐ Simplex Water Bowls |
| ☐ Silo Unloader | ☐ I'm building a new barn |
| ☐ I'm remodeling | ☐ Please have a Berg representative call |

☐ I'm interested in becoming a Berg dealer

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A stall barn should be on every farm!



MODERN SUPPLEMENT FOR COWS

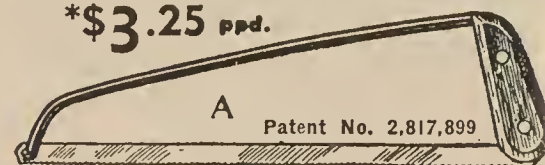
KOW-KARE

Generously Fortified with Vitamins A and D₂

Fortify your feed with KOW-KARE'S generous Vitamin A and D₂. ONE OUNCE of KOW-KARE supplies 8,000 U.S.P. Units of Vitamin A as Vitamin A Palmitate in Gelatin; also 10,000 U.S.P. Units of Vitamin D₂. COMPARE! In addition it stimulates lagging appetites in those animals fed rations deficient in the vitamins and minerals contained in KOW-KARE. 3 Sizes at your Dealers'.

DAIRY ASSOCIATION CO., Lyndonville 52 Vt.

*\$3.25 ppd.



Why not use a good saw? Ours is best small saw in the market. Tough and dependable. 16" blade cuts up to 3 1/2" with ease.

WHEELER SAW CO., BELCHERTOWN, MASS.

PERSONAL FARM EXPERIENCE

BARN CHANGE

We used regular loose housing with a manure pack for three years; it worked fine when plenty of bedding was available and very poorly when bedding was short. It took 100 bales of bedding per cow per season; our present free stalls cut this to less than half that much. Most of our bedding comes from poor hay chopped with an ensilage cutter.

We put bedding in the free stalls only once or twice a week. One very important part of the stalls is a cleat nailed across the tops of wood partitions 20 inches back from the front of each stall. This forces cows back when they get up so they put droppings outside the stall, but they rock forward under the cleat when they lie down and so have plenty of room. When we replace the wood cleat with permanent pipe though, we're going to put it 30 inches back from the front of the stall.

Stalls are 7 feet 6 inches long, vary in width . . . but I prefer 44 to 45 inches. The alleyways are cleaned each day with a tractor blade and, for two small ones, by hand. The spreader is in a pit where manure can be pushed into it; since it's a PTO machine, manure can be stacked in the field if the weather is too bad.

Bred heifers are run with the milking herd to get them used to free stalls. The younger animals don't go through the milking parlor nor even enter the holding area, though. The parlor, by the way, is a three-on-a-side walk-through type that we built ourselves.

Hard milkers are the first ones I cull, and nervous animals go next . . . I don't want a cow that doesn't fit the system. We have an Owner-Sampler herd average of about 11,000 pounds on our 41 registered Ayrshires. We find that southern United States has become a good market for our breeding stock; only recently we shipped two animals to Mississippi. — *Norman Cook, Burke, New York*

SPUD SALESMAN

We grew 60 acres of Chippewa and Katahdin potatoes in 1964, but also buy spuds to sell to supermarkets beginning the last week in August up until early May. We deliver to stores from Malone to Fulton and also in the Lake Placid-Saranac area. In this business, I have to deliver on a regular basis rather than letting price swings influence delivery.

Chain stores are in business to make money, but I have found their buyers to be reasonable and willing to cooperate. They demand clean and uniform potatoes (all we pack are washed), delivery on time and according to specifications agreed upon, and at the going market price. Selling to stores has convinced us that the

closer the producer gets with his product to the ultimate consumer, the less variable is the margin . . . and the higher proportion of the consumers' food dollar he gets.

Getting back to production, we use irrigation on 35 acres . . . have 8,000 feet of six-inch pipe. We like to irrigate one day and then spray after two days have elapsed, but the schedules don't always gibe just right and we have gone in with the sprayer when the fields were too wet.

Our boom sprayer is a fourteen-row high pressure rig (400 pounds

psi). I plan to stick to the boom rather than going to the air-blast type. My neighbors on both sides are dairymen and I wouldn't want spray drift to contaminate their pastures; in my opinion the boom sprayer is better on this score (especially in a wind).

The spray schedule calls for application every seven days. We use Zineb and Sevin early in the season, then switch to bordeaux mixture and Thiordan. If weather is clear, the switch is made about August 20, but if we're having bad weather then on August 12 to 15.

We dig with a two-row digger and local people pick them up. We've tried harvesters . . . "potato combines" . . . but find that small stones bruise potatoes with the

machines we've tried so far.

Our 126 by 40-foot storage holds 24,000 bushels, from which we pack in mostly 10 and 20 pound bags. —

— *Royal Foster, Brushton, New York*



"Get a move on, dear. All systems are 'go'."



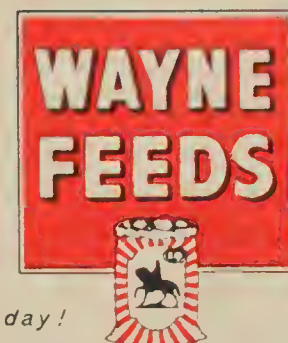
nobody wants to milk cows "Just for the fun of it"

But that's just what can happen when cows are not delivering their full production potential. Some herds average 14, 15 or 16,000 pounds of milk while others average only 10,000 pounds. Some cows produce 12,000 pounds of milk in one herd and 15,000 pounds when they move into a different herd.

How do they do it? Successful dairymen use the Wayne Concept to lead cows into peak production by feeding high levels of milking ration during the first month after calving. This is the key to high level milk production throughout the lactation.

The Wayne Concept is a concise, easy-to-follow feeding program to let your cows, themselves, tell you how much milk they really can produce.

See your Wayne Dealer who will be happy to explain the details and furnish the high quality feeds needed to make the program work.

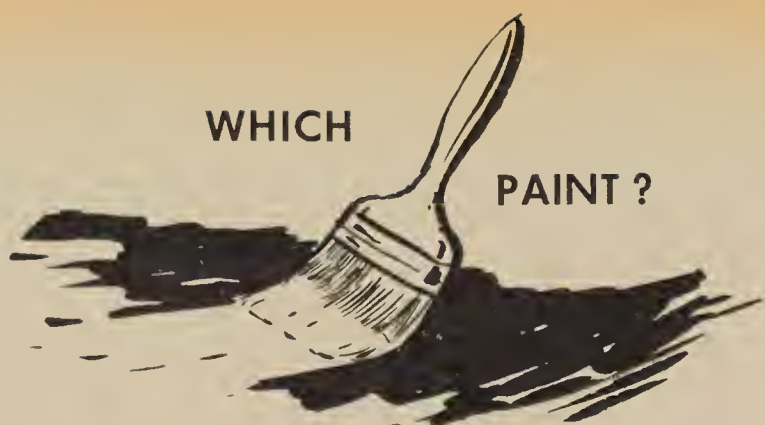


ALLIED MILLS, INC., Builders of Tomorrow's Feeds . . . Today!

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WHICH

PAINT ?



THE SUCCESS of surface coatings around the farmstead depends on the right paint, adequate surface preparation, and proper application. Reliable manufacturers usually specify on the label the uses for their product and the preparations necessary for its application. But here's some information from W. H. Collins of the University of Massachusetts that will help you decide which paint to buy.

For instance, for exterior wood the best products are oil based paint, latex based, or alkyd; for masonry walls, latex, latex masonry, powdered-cement, and exterior flats (oil or alkyd). On concrete floors deck enamel can be used, also latex floor paint; and in a milking parlor and milkroom epoxy enamels do the best job.

An important development in

paint technology has been the formulations of water-thinned latex paint. But don't think that latex always means rubber-base, for these paints have plastic-type bases dispersed in water, including vinyl and acrylic. Their desirable features include: water-thinned, little or no odor, quick drying, easily spread, and the tools can be cleaned with water. Also, they can be applied over a damp surface, and they dry with a "breathing-type" film that is more resistant to blistering and peeling than the oil-base paint. However, this blister resistance is only as good as the prime coat or previously applied layers of paint.

If you are going to change from an oil-base paint to latex, apply a coat of blister-resistant primer before applying the latex paint and

be sure that your surface is in good condition. A primer coat is necessary also on new wood surfaces. And to get the same results it may be necessary to use two coats of latex where one coat of oil paint would have been sufficient.

Alkyd Paints

These are improved versions of the old oil-base paints. The pigment vehicle and binder is composed of vegetable oils processed in combination with synthetic or manufactured resins. By varying the amounts of oil used, the manufacturer is able to obtain a wide range, so that there are alkyd paints for exterior, interior, and deck uses.

Masonry paints form a film that still allows moisture to escape, and which is resistant to the free alkali sometimes found on masonry surfaces. Ready-mixed masonry paints are available in oil or alkyd-base forms, and as water-thinned latex types. The latexes have greater resistance to moisture and alkali, have less tendency to chalk, and are easier to apply.

The epoxy enamels that are best for milking parlors, milkrooms, meat and egg processing rooms, consist of two parts mixed together just prior to use. They are applied like other paints to either masonry or wood surfaces.

If you want a good paint job, buy the best paint available for a particular job, and follow the manufacturer's directions.

Feeding protein

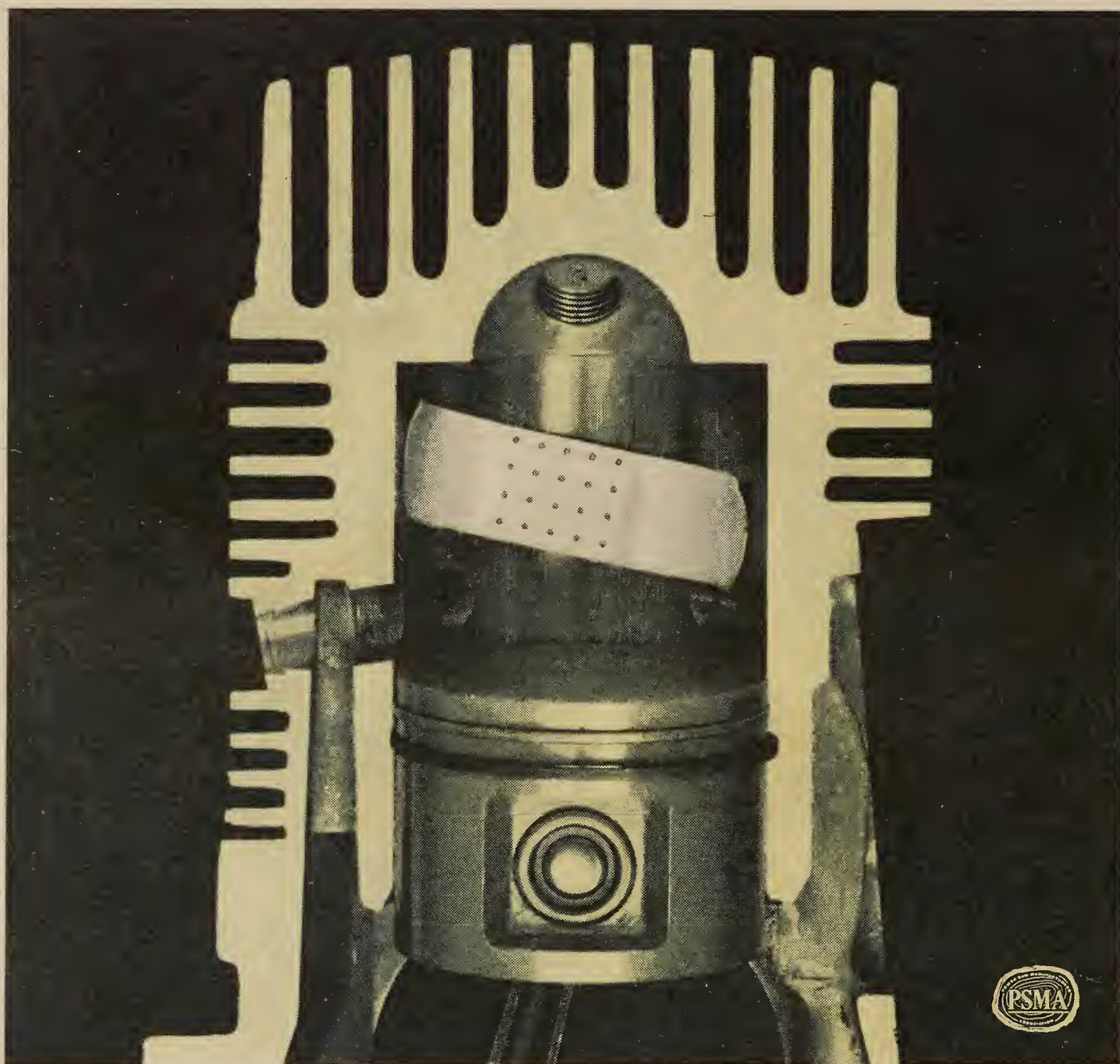
(Continued from page 6)

If the price of a feed containing urea is a lot lower than a conventional grain mix, then one would suspect cheaper and lower energy feeds have been used. The net energy content of this mix would be low; and more of it would have to be fed to secure the same milk production.

Natural urea is excreted by animals. It is poisonous, and synthetic urea can be poisonous when too large quantities are consumed. Deaths in cattle have resulted from feeding improperly-mixed concentrates and urea. However, feed companies have been aware of these facts for a long time, and are doing a good job of mixing the urea thoroughly with the other ingredients. Also, urea is not palatable to cows, and is not as readily consumed as oil meals, another reason why good mixing is necessary.

In conclusion, don't look for the "bargain cheap" feed. You can save by using a good-quality urea-containing feed, but you can also save by buying in quantity, buying in bulk, and picking out your best feed buys. In addition, you can help by buying and/or mixing the right protein percentage in grain mix that you need in your feeding program.

Further, and most important, greater profits are available from more liberal feeding of your high-producers. Prepare them for calving, and after calving bring them onto full feed fast. Then when your cows reach their peak, hold them there, and drop grain feeding when milk production drops.



YOU MIGHT AS WELL PUT A BANDAGE ON IT, IF YOU CAN'T REBORE IT

Some chain saws can't be rebored, so you have to spend extra money for block replacement. Not so with powerful economy-minded McCullochs. We put a long-wearing cast-iron liner inside every cylinder so you can rebore. Oversize pistons and rings are available to make rebuilding the engine an economical job. But that's not all. Large cooling fins keep air passages free of sawdust so the engine runs cool and efficiently all day long. McCulloch pistons are the strongest in any two cycle engine, and the rings are placed down from the top of the piston to avoid overheating and sticking. If you look at McCulloch bearings up close, you'll see an "etch mark" which signifies the toughest, strongest, longest-lasting metal available. Also,

McCulloch has an extra large fuel tank so you can cut longer without stopping. Outside, the engine housing is secured by bolts set in "nut pockets" so there is no stress or strain on small threads to cause damage and costly block replacement. There are at least a dozen or so other reasons why McCulloch is the best buy in the whole chain saw world, and your dealer knows them all. See him about any one of 10 new models priced from \$124.95.*

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PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

McCULLOCH 
DEPENDABLE CHAIN SAWS
LEADERSHIP THROUGH CREATIVE ENGINEERING



AGRICULTURAL SOCIETY DOINGS

THE ONE HUNDRED and thirty-third meeting of the New York State Agricultural Society was held January 13 in Albany.

After partaking of the delicious New York State farm products at the annual dinner in the DeWitt Clinton Hotel, Governor Rockefeller made a brief address — then he was presented with the Empire Farmer Award by FFA president Gary Swan.

Four young winners of a statewide slogan contest conducted by the New York State Rural Safety Council were presented to the Governor and each received a \$25 U. S. Savings Bond. They are Charles Eitel, Afton; Bettie Otten, Unadilla; John Hart, Rochester; and Sally Davis, Branchport. The winning slogans will be used by the Council in its continuing efforts for safety promotion.

Century Farms

A particular highlight of the occasion was the citing of century farms, and the presentation of the families to the Governor. The four farms cited for 1964 are:

Chauncey S. Cook & Sons,

owners of Cook Farm, which has been in existence since 1815. Milk has been produced for sale since the late 1800's. At present father and son have 76 Holstein milkers, 59 young stock, and the crops consisted in 1964 of 70 acres corn, 60 acres oats, 10 acres wheat, and 110 acres of hay.

T. E. LaMont Fruit Farm,

Albion, Orleans County. This farm also has been going since 1815, and at present there are 1,133 acres of fruits, vegetables, and field crops. There is an apple storage capable of holding 60,000 bushels, of which 50,000 bushels capacity is controlled atmosphere. And there's a large acreage of new plantings for the years ahead.

The Jennings and Partridge Farm,

East Durham, Greene County, has been operating since 1825. The Jennings Jerseys have been on the show circle at local fairs since 1914. Today the herd consists of 80 milkers, with 75 head of young replacements.

Overton Farm,

Henderson, Jefferson County, has been in the family since 1859. The present owners are Mr. and Mrs. Richard M. Overton. This is a dairy farm, and they keep about 90 head of registered Holstein stock, with all bull calves and some heifers being sold. The Overton Farm had the first Holstein cattle in Jefferson County. The first owner, Joshua Overton, was town supervisor; his son Floyd was a leader in establishing the Extension Service and DHIA in the County.

The Society's Distinguished Service Citation was presented to Harold L. (Cap) Creal, for his outstanding service to agriculture. Thomas E. Milliman, Ithaca,

has set up the Leonard T. Milliman Fund, in honor of his son. This fund will, during Tom's lifetime, provide \$600 per year to the Society to defray the cost of permanent bronze plaques designating the century farms. Mr. Milliman has served as president of the Society, and was for several years chairman of the Century Farms Committee.

Also a past president of the Society was Arthur V. Youngs, Glen Cove. Mr. Youngs donated to the Society 10 shares of Glen Cove Bank stock to be used for the same purpose.

Clearing-House — A clearing-house of information about egg supply and demand is being set up as a pilot project at the College of Agriculture, Ithaca, New York. Any egg distributor or producer-dealer will be able to call the office of SPICE, Stocking Hall, Ithaca, if he has an over-supply of certain grades and sizes of eggs. And any member of the New York State Egg Distributors Association can call the office if he needs supplies of certain sizes and grades of eggs. The office will give information only; the arrangements will be made between the operators.

Short-term fluctuations in egg prices are often brought about because regional surpluses find their way to New York City, where

market quotations are used as the base price for nearly all egg transactions in the U.S. Often these surplus eggs could have been absorbed in other areas of the marketing system. It is felt that a clearing house could prevent some of the financial loss.

Laboratory Analyses — Pennsylvania State University is working with the Pennsylvania State Departments in laboratory analyses as a solution to the farm crop pesticide residue situation. Technicians from the Department of Agriculture are keeping close check on milk and other products; four commercial laboratories, under contract, are assisting the Department in making the tests.



The Silage That Makes MORE MILK!

■ It's the feed value in every ton of silage that counts . . . the power to produce more milk (or beef) per acre. That's the one big reason why so many dairymen and cattle feeders are planting high capacity Funk's G-Hybrids for silage.

Yielding capacity is the way to judge silage hybrids. This means not only tons of forage per acre, but yield of dry matter and total digestible nutrients (TDN's) per acre. And that calls for Funk's-G.

There's a high capacity, high TDN Funk's-G silage hybrid in every maturity range, to give you higher "milkpower" silage. Consult the Hoffman Seed Man in your area. He is familiar with climate and soil conditions, and can help you plan for extra TDN silage.

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High capacity Funk's G-Hybrids have been setting grain production records on farm after farm. The keys to this high profit performance are: (1) selecting the right Funk's G-Hybrid for your soil and climate; (2) a program of thick planting, and (3) enough fertilizer to adequately feed the high plant population. Try it! It works!

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FARM SEEDS
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(Continued from page 14)

to such common carriers. As a matter of fact, this January 1, 1966 deadline is going to force quite a few New York dairymen to meet the requirements of the Public Health Service Code.

"There is also pressure from another source. All veterans hospitals (and there are 12 in New York State) are seeking to purchase milk and dairy products only from Public Health Service-rated supplies where available.

"So, for several reasons, New York dairymen are going to feel the need to meet this Federal Public Health Service Code; but, actually, this is a good thing,

because it would give us more uniformity in regulations in the Northeast. It could lead to one inspection agency for the dairyman, and toward reciprocity among the northeastern states.

"Please remember, too, that under these Public Health Service programs the individual state does all its own enforcement, and not the Federal government."

How Adopted?

"I'm still a little hazy," I said, "about the manner in which this revised Public Health Service Code would actually be adopted."

"I don't know that it is spelled out," said Dick. "As I understand the situation, any state that is now using the old code will probably accept the revision now being

made. So far as states not now operating under the Public Health Service Code, I suppose it might be done in one of several ways. I understand that the New Hampshire legislature has passed a bill adopting the present Milk Ordinance and Code. In New York State I think that the Public Health Council could decide to use this Code as a basis for sanitary requirements. After all, it is very similar to our present New York requirements; but to keep complete uniformity, New York City would also have to adopt this same Code."

My next, and I think the last question I asked was: "How would this affect the man who is milking the cows?"

"Certainly every dairyman

should be interested. However, I don't see that he should be worrying, because the regulations will not be greatly different. In fact, I believe that some minor requirements that don't make sense — and which don't really affect the quality of milk — will be removed. The final regulations will be in the interest of good sanitary practices, which all good dairymen should want to follow.

"Whether or not the Public Health Service Code is officially adopted by each of the northeastern states, I feel sure that there will be some tightening of the requirements. And I think there should be, and that dairymen should welcome them. After all, the production of milk of top quality is of vital importance to every northeastern dairyman."

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to produce
more milk,
but
I don't get
Golden Isle Citrus
Pulp in
my diet, like you.
All I get is
grass!"***



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Stanley W. Beal, general manager of the United Farmers of New England, recently had this to say about U. S. Public Health Code approval:

"We have found that approval is a business necessity, as a number of most important customers can only purchase milk which is approved under this program. As of January 1, 1966, continued approval under this system requires the inspection and approval of our sources of supply, as well as the plant itself. This problem is not confined to United Farmers; it involves every dairy company doing more than a purely local business."

He went on to remind dairymen that their farms are food plants, and that dairy farmers are doing business with the public. He also announced that United Farmers' board of 22 directors in Maine, New Hampshire, New York, and Vermont have scored a combined rating in excess of the 90 percent minimum required under the new United States Public Health Code.

VIEWPOINT!

The New England Milk Producers' Association is on record as urging a five-year moratorium on enforcement of new regulations under the United States Public Health Code, in order to give producers time enough to make adjustments which it requires.



"You've been overworking, Frank . . . keep it up."

DETECTING HEAT IMPORTANT

Dr. J. J. Mettler is a practicing veterinarian at Copake Falls, New York. His associates are Drs. C. M. Jenkins and P. C. Layer.

LAST DECEMBER while on a farm call I met a friend selling bale twine for the 1965 haying season. When we kidded him about being ahead of season he replied: "Today is December 2nd; in only two months it will be Ground Hog's Day, and the winter will be practically over." Today, as never before, farmers have to plan months ahead on everything from saving money on bale twine to getting their cows bred to produce milk when the market wants it . . . and pays more for it.

Much is said about sterility, herd health programs, etc., but not enough stress is put on what I believe is the greatest cause of failure in getting cows bred back in time . . . the unobserved heat. Few well-fed cows don't have heats, but many high-producing animals go through one heat period after another without being detected. With today's push for more milk (and therefore more cows) per farmer, there is less time to observe individual cows and consequently more heats are missed.

Cycle Timing

A normal cow shows heat three to six weeks after calving, and comes in heat every 18 to 24 days from then on until bred. Sixty days after calving, the normal cow is ready to be bred back, although a cow producing more than eighty pounds per day might better be held off another thirty days for economic reasons.

Twenty-one days, counting the day after heat as number one, is the most normal heat interval. At the time of heat a follicle (or small blister of fluid) is on one ovary, and this follicle contains an egg. Six to twenty-four hours after the end of standing heat this follicle ruptures, and the egg passes into the oviduct, a tube leading to the uterus. If sperm is in the oviduct at this time conception takes place.

At the time the follicle ruptures, the resulting pit formed on the ovary gradually turns into a yellow mass called a corpus luteum, or yellow body. A week after heat this yellow body is well formed, and if the animal has not conceived it stays there for about eighteen days, only to shrink down and allow another follicle to mature, and the heat cycle is repeated.

If the cow did conceive, the hormones secreted in the pregnant uterus cause the yellow body to stay for a nine month period. It is not quite that simple, but in a practical way the pregnancy holds the yellow body . . . and the hormones secreted by the yellow body hold the pregnancy.

The typical cow in heat stands to be ridden when turned with other cows. She may attempt to ride other cows, but the cow doing the standing is the one in heat. That, and that alone, is about all some people ever observe as far

as heat is concerned. Many cows do not stand, or are not seen standing in heat, and are therefore missed.

What procedure should a cow man follow if he is to observe as many heats as possible? First, he needs a heat expectancy chart, which can be obtained from his inseminator or a feed dealer. There is a chart with twenty-one day periods marked off, so that one,

twenty-one, forty-two, and sixty-three days are all on the same line. When you note a heat, write the cow's name or number or the date, let us say January 1st. When January 22nd comes around she should be in heat again. If she is bred then write her name down and circle it.

Daily milk weights can tell heats as well as any way, but this is seldom done any more. However, a good milker should make a mental note of any cow that doesn't let her milk down, or is down on milk at a given milking. She could be in heat.

Another good indicator is a pre-heat mucous. Watch cows' tails for a tiny string of clear mucous

that precedes heats by twelve to twenty-four hours. This takes careful observation, but once you learn what to look for, it can be done almost without effort. Next, notice anything different a cow does. If she normally is the last one out of the barn, and today she runs out, she may be in heat. If she is standing when she normally would be lying down, she may be in heat. If she turns to look at you when she normally doesn't pay any attention, or if she tries to lick you with her tongue, she may be in heat. Bellowing is also a symptom in some cows.

The vulva, or external genitals of the cow, are often slightly swollen and appear a different shape

(Continued on page 41)

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Exclusive IH firming shoe "frog" is the key to proper seedbed preparation. It evenly firms and forms the furrow so that seeds germinate quickly and evenly.

Choice of runner or double disk openers. Offset disks cut through trash. Row spacing is easily adjusted. Planter units float individually under pressure spring control.

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Signed a note?

(Continued from page 18)

commercial agriculture.

We shall see the growth of family shares of ownership of the family farm, instead of placing the farm in an estate to be sold as a unit. The family shares will be transferable, so that one of the heirs, wishing to convert his inheritance to some other form of property, may sell his share to a third party who may be entirely outside the family. Thus, what starts off as essentially a "family-owned" farm, may end up as a farm under group ownership, but still a single unit and single operation, with single management for the entire unit.

In this case ownership shares will be transferred to investors, who are essentially putting up "risk capital" just as they now put up "risk capital" in a corporate business enterprise. Increasingly, on units of this kind, management will be provided by a professional management group, standing between the individual owners and the operator of the farm. This is, of course, a kind of integration we have seen develop in recent years, although we haven't called it by that name.

Finally, an increasing proportion of production items will be assembled in off-the-farm agribusiness, and purchased by the farmer.

American farmers now spend

approximately 65 cents of every dollar of gross farm receipts for purchased production inputs or services. Farmers used to produce their own power and fuel, but now purchase it; they used to process most of their own feed, but now are heavy purchasers of processed feeds; they buy science in the feed-bag. The same is true of fertilizer application, insecticides, herbicides, and a whole host of things. This trend will grow, underscoring the need for adequate financing from off-the-farm sources.

One of the key factors in the current agricultural revolution is the broad extent to which capital has been substituted for labor. During the last 20 years in Amer-

ican agriculture we have roughly quadrupled our capital per worker.

Even so, many good farmers still do not use enough capital. This may be because of the policies of the people from whom they borrow, but more frequently it is because farmers themselves are not fully aware of the opportunities to increase income by wise use of additional capital and its substitute for labor. As the old saying goes, it takes money to make money!

MECHANIZATION MARCHES ON

Sour cherries are being mechanically harvested in an increasing volume every year, and there is progress in process apple harvesting by machine. "But," says Professor Everett D. Markwardt of Cornell University, "mechanization of fruit and vegetable harvesting has not kept pace with developments in other fields."

Among the problems involved is the fact that fruit orchards, for example, vary in tree size, slope of the land, tree spacing, etc. Machines must not only be very specific for each crop — but often must be drastically modified for the same crop in different regions of the country.

Shakers Successful

Shakers which vibrate the trees from 400 to 2,000 times a minute have been the most successful, particularly with sour cherries. Cornell's newly-developed grape harvester removes 95 percent of the fruit (for juice) at the rate of at least an acre per hour.

Among the many harvesting machines are a partially-mechanized blueberry picker, Oregon's selective harvesters that measure cane berry size before picking them from canes, and a combing or stripping device for strawberries being investigated by Illinois engineers.

Even more fascinating is the use of photoelectric cells for sensing mature asparagus spears before automatically cutting them, Western experiments that select mature heads of lettuce without injury, and cabbage harvesters being worked on in North Carolina, Michigan, and New York. And in California there is a melon harvester which lifts the vines and melons, selects mature fruit through the force of friction and gravity, and returns the immature fruit and vines to their original position.



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Food For The Spirit



by Robert Clingan

A PROFESSOR of family life at a state university told a group of ministers that our society puts such a high value on success that we cannot accept the possibility of failure for either ourselves or our children.

This explains the attitude of a ruthless athletic coach who said that any boy on his team who smiled in the locker room after losing a game was through. It's why a girl tried to take her life when she discovered that she was failing to pass the college final examinations her first year. Here is the reason why so many talented young men prefer to work for either a corporation or the government rather than go into business for themselves even when they have the necessary capital.

This also explains why our churches and our small town organizations do not give the inexperienced person, and especially youth, leadership opportunities with the kind of personal responsibility that makes for growth. Said the professor, "There is no growth without enough personal responsibility to make personal failure a real possibility." Perhaps this also explains the ulcers, nervous breakdowns, and heart attacks of so many people in the prime of life. Are they trying too hard to hedge their lives against the possibility of failure?

This warped emphasis on constant success, total achievement, and fear of failure needs the kind of corrective that the attitude of a good farmer supplies. Every crop a farmer plants can be destroyed by a ten minute hailstorm or three weeks without rain; yet, he can take a single loss without panic or despair.

The failure of one year never keeps him from planting another crop the very next spring. In his way of life there is room for failure . . . and even a succession of small failures will not destroy him or force him to leave a way of life he loves, or the business in which he has invested everything.

If our lives are paralyzed by fear of failure, the Bible itself should give us the corrective we need. In Isaiah 6:1 there is an account of God calling a man to be

a failure. He was to speak the word of God to people who were determined not to listen. Eventually they would destroy themselves by their unyielding deafness to commands of God.

Isaiah was to preach the Word just the same. He was not to be afraid to carry out the requirements of his Lord, even though he knew he and his message would not be received. You see, he feared God . . . but was not afraid of failure.

A well-rounded spiritual life has the capacity to take risks, the willingness to attempt man-sized goals, and room for possible failure. This is part of what it means to live by faith. As the Bible says, "Faith is the evidence of things not seen."

Dates to Remember

Feb. 1-3 - Golden Anniversary Meeting, National Dairy Council, Chicago, Illinois.

Feb. 4-5 - New Hampshire Poultry Health Conference, University of New Hampshire, Durham.

Feb. 6 - Meeting Western New York Apple Growers, and New York Cherry Growers, Rochester, N.Y.

Feb. 9-11 - Farm and Home Week, University of Delaware, Agricultural Hall, Dover.

Feb. 15-22 - 4-H Club Week.

Feb. 20-27 - National FFA Week.

Mar. 2 - Annual Meeting, United Milk Producers Cooperative Association of New Jersey, Trenton.

Mar. 6-7 - School for Christmas Tree Growers, Cornell University, Ithaca, N.Y.

Mar. 11-12 - National Peach Conference, New Jersey College of Agriculture, Rutgers, New Brunswick.

Mar. 13 - Little International Livestock & Horse Show, University of Connecticut, Storrs.

Mar. 16-20 - Tree Wardens, Arborists and Utilities Conference, University of Massachusetts, Amherst.

A psychiatrist is one who starts worrying when others stop.

- Gilcrafter

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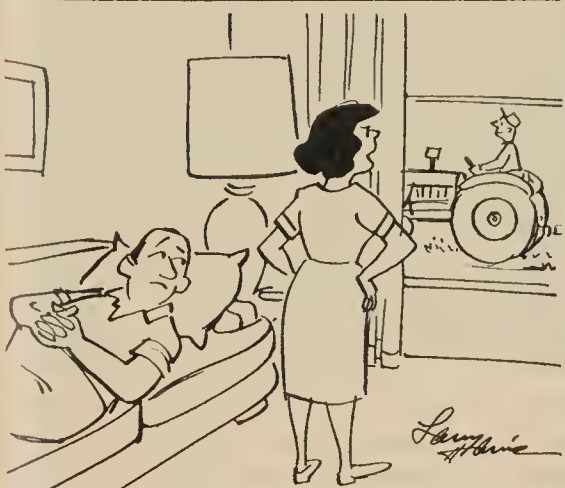
farm, or more land—I just go see the manager of our local association. The way I see it, Farm Credit Service loans haven't cost us a penny . . . they've more than paid for themselves in increased production and profits. Farm Credit Service knows the farming business because it's owned by farmer-members."

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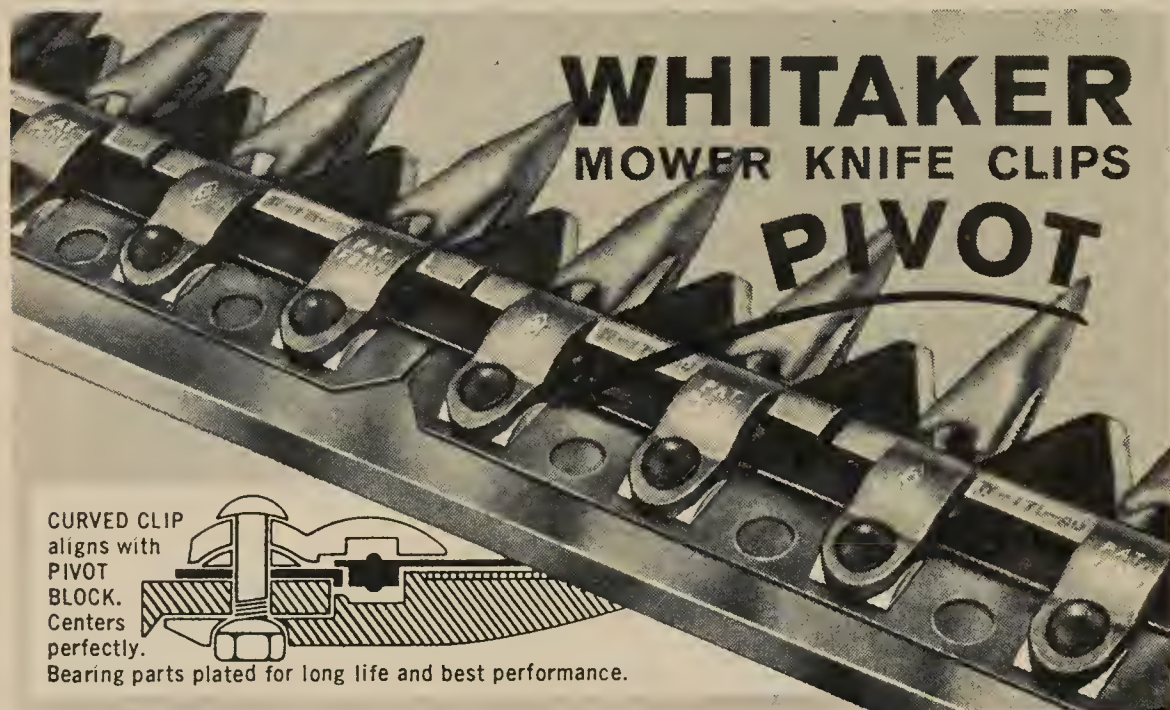
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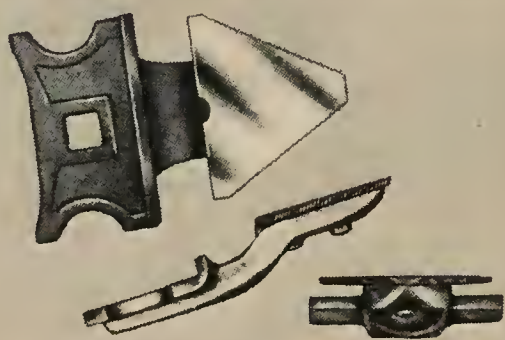


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News and Views from NEW YORK AND PENNSYLVANIA



About to analyze pesticides residue in food sample, Carl A. Bache of the Pesticide Residue Laboratory, New York State College of Agriculture, ignites arc in a new sensitive detector. The system was devised by Professor W. D. Cooke, Cornell chemist, and his graduate students, and saves much time from previous methods. "An accurate, clean response is obtained," says Professor Donald J. Lisk, laboratory director, "with no interference from other chemicals."

Master Farmers — Six Master Farmers were named in Pennsylvania for 1964: Reuben A. Field, Mohrsville, a successful dairyman. In 1963, the Field family was chosen Berks County Farm Family of the Year . . . Alfred M. Durand, Wyalusing, another Master Farmer, is a successful farmer on the hilly, rocky land of Bradford County. Through the use of tile drains, sod waterways, diversion terraces and contour field strips he has transformed 350 acres into a highly-productive dairy farm.

The Mattocks family have been involved in dairying since Springfield Township, Bradford County, was settled many years ago . . . Orton B. Mattocks, Troy, operates a 500-acre farm that produced an average of over a million pounds of milk for the past four years . . . Harry R. Ulrich has a busy time taking care of a 25,000-bird laying flock on his farm near Harrisburg. His outlets are farmers' markets, restaurants, and stores.

Only about 5 to 10 percent are wholesaled.

Reno H. Thomas, Beavertown, famous for his breeding stock of purebred Yorkshire hogs, has become Snyder County's first Master Farmer. His was the nation's high herd in Yorkshire recordings each of the past three years.

Membership in agricultural and civic organizations has kept Harold R. Ziegler, Breinigsville, active when most men his age are either retired or making plans. He was born in 1897, and reared in the general area of his Lehigh County farm. Dairy cattle are important on his farm. Breeding and culling through the years has produced a registered Holstein herd that averaged 14,836 pounds of milk and 518 pounds of fat in 1963.

Beekeeper — L. Claude Stevens of Venice Center, New York, has been



L. CLAUDE STEVENS

honored as Beekeeper of the Year 1964 by the Empire State Honey Producers Association. The beekeeping business at the Stevens Farm was begun by Claude's father, Nelson, more than 80 years ago, and at the height of operation had 1,500 swarms distributed in southern Cayuga County. The largest annual production at that time was 80 tons. Both Nelson and Claude Stevens were charter members of the Finger Lakes Honey Producers Cooperative at Groton, New York. Winners — Harry A. Centner (17) Dunkirk, New York, is the 1964 National Winner in the Fresh Market Section of the Production and Marketing Contest of the National Junior Horticultural Association. His project included pumpkins, squash, Indian corn, gourds and other vegetables.

(Continued on next page)



These French housewives are receiving samples of American fruit at the United States Exhibit, Salon International de l'Alimentation. The United States Exhibit, which also featured meat, rice, dry edible beans, and honey, was sponsored by USDA's Foreign Agricultural Service, along with cooperating trade groups. It's all part of an intensive campaign by government and the industry to sell more agricultural products to European countries.

Clinton R. Brouse, Northumberland, Pennsylvania, is Pennsylvania Champion potato grower for 1964. He grew 584 bushels per acre of Katahdins. Sixteen-year-old Carl Styer, Muncy, was named junior champion and grand champion potato grower of Pennsylvania, with a top yield of 640 bushels an acre.

Animal Research Center—The Earl Clark Farm at Norwich, New York, has been purchased as the site of an extensive new Animal Research Center by the Norwich Pharmacal Company. Over the next five years it is expected that approximately 60 acres of the farm will be developed for research facilities, with a complex of nearly 25 buildings. New compounds will be tested there for effectiveness and safety, and in addition there will be an office and laboratory building, a bulk feed blending plant, several animal breeding and holding buildings, a power plant, machine shop, and sanitary utilities.

Human felicity is produced not so much by great pieces of good fortune that seldom happen, as by little advantages that occur every day.—Benjamin Franklin

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Ilion—Burrill Saw & Tool Works—401 E. Main St.
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Johnson City—Newman Bros. Hardware—257 Harry L. Drive
Johnson City—Oakdale Equip.—702 Main Street
Johnstown—LeRoy C. Sweeney—RFD #1—Hiway 116
Keene—Gordan C. Wilson—P. O. Box 16
Keeseville—Dan Downs
Kenmore—Kenmore Renting Co.—1297 Kenmore Av.
King Ferry—Roy A. Tuttle, Inc.—P. O. Box 34
LaFargeville—Clarence Comstock—RFD 1—Plessis Omar Road
Lake Pleasant—Wight's Esso Station
Larchmont—Foley H'ware, Inc.—88 Boston Post Rd.
Lee Center—Stokes Chain Saw Service—RT #26
Leeds—Peter Suttmeier—Sandy Plains Road
Liberty—Gerow Brothers—RD #1
Long Eddy—Malcolm Cawson—P. O. Box 66, Rt. 1
Malone—Elliott & Hutchins, Inc., East Main Street
Margaretville—Fairbairn Lumber Corporation
Marlboro—State Sales Sons Inc.—Route 9W
Massena—Douglas LaPoint—Rt. #1
Mayfield—Peter Johnson—R.D. #1 Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop—R.D. #2—Rte. #9
Mendon—Saxby Implement Corp.
Middleburg—River Imp. Co., Inc.—Middle Fort Rd.
Middletown—H. L. Ayres—P. O. Box 187
Millerton—Brewer's Mower Sales & Service—Sharon Road
Monsey—John W. Knapp—Route 59—P. O. Box 105
Morrisville—Ralph Pashley—P. O. Box 432
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North Syracuse—Hytron Lumber & Supply, Inc.—Fay & Allen Road
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Orchard Park—Site Contractors, Inc. 132 Calif. Rd.
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Salem—George A. Jolley—South Main Street
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Smyrna—John E. Blanchard—Route 80—Main St.
Southampton, L.I.—Wm. A. Frankenbach Garden Center—North Hwy. North Main Street
Sodus—Delyser Bros.
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Springville—Warner Lumber Mill—R. F. D. #1
Stamford—Eklund Farm Machinery—P.O. Box 216
Staten Island—Forest Equip. Co.—1319 Forest Ave.
Staten Island—Trimalawn Equip.—2081 Victory Blvd.
Staten Island—United Rent-Alls of Staten Island—3874 Richmond Ave.
Stone Ridge—Dedrick Pow. Equip. Co.—Cottskill Rd.
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Syracuse—Reliable Farm Supply, Inc.—2083-85 Park Street
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Tarrytown—County Power Tool Company—625 White Plains Road
Thendara—Dan Hudson—Route 28
Troy—E. J. Goyer—R. D. 1—Box 35
Trumansburg—Millsbaugh Brothers—Cayuga St.
Tupper Lake—Herve St. Onge—39 Broad St.
Warrensburg—Carl R. Kenyon—Route 28
Warwick—Walter Equipment Company
Waterloo—Seaway Marina, Inc.—473 Waterloo-Geneva Road
Watertown—White's Lawn Supply—RD #4 (c/o C. Howard White)
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Wells—Floyd Simons—Box 138 Old Wells-Speculator Road
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Westport—Marshall F. Fish—Rt. 22 on Lake Champlain
West Winfield—West Winfield Farm Supply
Whitehall—Norman H. MacLeod Saw Shop—Comstock Road
White Plains—The Lafkin's Golf & Lawn Supply Corp.—1200 Mamaroneck Avenue
White Plains—Pickard Hardware, Inc.—203 E. Post Road
White Plains—Hecht & Sons, Inc.—11 S. Lexington Avenue
Whitney Point—H. A. Penningroth & Son

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Bayville—Dover Sup. Co.—Box 225—Mill Creek Rd.
Bergenfield—Bergen Rental Service, Inc.—150 South Washington Avenue
Blairstown—J. C. Roy & Son
Branchville—The Roy Company
Camden—Antrim Hardware Co.—1514 Federal St.
Cliffside Park—Halton Hdwe.—666 Anderson Ave.
Clinton—Philip G. Berger—Box 5286—Route #22
Cranford—Andy's Handy Service—117 South Ave. W.
Dover—Handymans Tool Shop—Centergrove Rd. & Route #10
Eatontown—Grasslands, Inc.—Box 94
Elizabeth—A-M Tool Rental—69 Cherry Street
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Fairview—Edge Grinding Shop—388 Fairview Ave.
Freehold—C. H. Roberson, Inc.—29 Court Street
Garfield—Ralph's Hwg. Serv.—Rt. 46 & Boulevard
Gladstone—G. F. Hill & Company
Hackettstown—M. B. Bowers & Son, Inc.—128 Willow Grove St.
Hammonton—Parkhurst Farm & Garden Supply—301 North White Horse Pike
Hanover—Do It Yourself, Inc.—Route #10
Harrison—H. I. Karu—215 Harrison Avenue
Hazlet—The Service Equipment Co.—3141 Route 35
Hewitt—Sportman's Boats & Motors—W. Shore Rd.
Hightstown—C. H. Roberson, Inc.—Rt. 33—Mercer Street
Lambertville—John Kurtz—R. D. 1
Lawrenceville—Lawrenceville Hardware Company—2667 Main Street
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Little Ferry—Ted's Lawn Mowers—15 Riverside Ave.
Madison—Tractor & Lawn Mower Sales & Service—331 Main Street
Maplewood—Gauthier Door Check—2 Burnett Ave.
Medford—Fred Myers, Jr.—RR #2—Box 304
Middletown—Monmouth Mower Shop—656 Route 35
Monroeville—Albert Weber—Route 538—Swedesboro-Franklinville Rd.
New Egypt—J. R. Caines—Route #539
Northfield—Vic Collins—2101 New Road
North Plainfield—United Rent-Alls—714 Route #22
Oakland—Bergen Power Equipment—593 Valley Rd.
Old Bridge—Old Bridge Tractor—RFD—Box 328
Old Bridge—William J. Rainaud—Box 95—Hiway. 9
Paramus—Artie's Hardware & Machine Shop, Inc.—495 Paramus Road
Penns Grove—R. F. Willis Co., Inc.—7 Oak St.
Pine Brook—Shulman Tractor Co., Inc.—Route 46
Pompton Plains—Livingston Sport Center—Route 23
Princeton Junction—Grover's Mill Company
Riverton—Riverton Fm. & Garden Sup. Inc.—Rt. 130
Roseland—Needham's Grinding Service—191 Eagle Rock Avenue
Saddle Brook—Point Service & Supply, Inc., 112A Route 46
Short Hills—Millburn Grinding Shop—658 Morris Turnpike
Somerset—Frank's Building Supply Co.—619 Somerset Street
Somerville—Post Stores, Inc., US Route 22
Summit—Glenjay's Mower & Garden Shop—385 Springfield Ave.
Sussex—Len's Service Station—R.D. 1
Trenton—United Rent Alls—1690 Pennington
Tuckerton—Margraf's Hardware—North Green St.
Union—Rent-A-Tool—2491 Route 22
Vincetown—Wells Mobile Service—Route #206
Vineland—Swanson Hardware Sup.—533 N. E. Ave.
Waterford Works—Rusnak Bros. Inc.—Chew Road
Westfield—Storr Tractor Co.—469 South Ave. E.
Wharton—J. W. Malson, Sr.—Route 15 (RFD 2)
Williamstown—Weed's Lawn & Garden Mart—311 South Black Horse Pike
Woodbury—Arber's Lawnmower & Engine Service—962 North Broad Street

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The Hi-Throw lifts over 60 tons an hour to any silo height — does it hour after hour without plugging, without unloading slowdowns. Needs no helping hand from step-up drives or smaller blower pipe.

New features include: water hose intake; recessed wheels for easier positioning of forage box; and "quick-touch" leveling adjustment for fast, easy set-up on uneven ground.

A simple fan adjustment—to within 1/16-in. of the housing—reduces air loss. Rim sheet adjusts, too. Allows straight-line blowing into haymows (some blowers balk at this) . . . or to any type silo.

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See all three air-powerful Hi-Throw Blowers — hopper, or 3-ft. or 10-ft. trough models — at your Gehl dealer soon. Let the Hi-Throw make *your* blowing jobs easier.



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Please send more information on the Gehl Hi-Throw Blowers. ☐ I am a student.

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Gayway Farm Notes

by HAROLD HAWLEY

THE LEARNING PROCESS

When we moved from a stanchion barn to a slatted floor, free-stall, milking parlor set-up, it was a bit of a switch for all involved. Add to this the fact that the cows had to change from a ration of corn silage, baled hay, and ground cow feed to one consisting of corn silage, haylage, and grain pellets.

The adjustment in our case was slower than it should have been because some of our larger cows couldn't stand in the herringbone-type stalls in the milking parlor without really being jammed in. As a result, they developed bruises on their rumps which certainly discouraged their coming into the parlor the next time. Likewise, anything which reduced the cows' pleasure at being in the parlor slowed up their acceptance and enthusiasm for the grain fed there.

Maybe we had best take it from the top. Everyone was interested (and apprehensive) as to how the cows would do on the steel slats. We put down a few rubber mats in front of the door, put a little straw on the mats, and drove them in. The slats were noisy when they walked on them and there was some slipping. After a day or two, though, they had all learned to walk on the slats and this ceased to be a problem.

It's been amazing how well the manure has worked through the openings between slats, and how little slipping there is now. It's pretty clear that lots of ventilation helps dry out the slats, and the manure on them, and greatly increases traction. We haven't yet pumped out any manure, but are assuming that this will work okay. We are really sold on this slatted floor-liquid manure set-up.

Disturbing

One of the disturbing things which happened the first week was the darndest outbreak of mastitis ever. Possibly 3 or 4 different quarters would show a few flakes each milking. Our veterinarian said it was tension, stress, lack of let-down, etc., and not to be too alarmed — and not to treat them unless they were too bad. Sure enough, in a little while all this cleared up by itself. It took me longer to get over it than it did the cows! I've since heard that it isn't unusual for such a drastic change to cause a temporary flurry of trouble like this.

The people had to learn some new habits, too. First off, it took several days to learn to identify a cow in the parlor from a glance

at her legs and udder. Likewise, all our individuals soon became just numbers; this was quite a switch! No more do we have old Emma or Royal or Mamie — just numbers. Actually, some of the names weren't too complimentary anyway — Rocky, Dummy, Legs, not to mention George! We have had a George for several years ever since daughter Eilene named a heifer after her grandfather, who is Gramp-George to us all.

Feeding Program

Feeding correctly has been something else to be learned. The manger is big enough to hold more than 12 hours supply of corn silage and haylage; however, there is much less waste and greater consumption if we feed at least 3 times a day. With two silo unloaders ready to go we were able to mix corn silage and haylage by running both unloaders at once. This speeded up the acceptance of haylage by the cows.

In order to get enough grain into the cows, we spread regular cow feed on top of the silage in the barn. This, along with the pellets they eat in the parlor, provides grain enough on the average. We had no way of feeding the heaviest producers any more than any others until they begin to eat more in the parlor, and this took close to three weeks.

I guess just about everyone has expressed interest in the possibility of odor from the water and manure in the pits under the slats. Of course, what little experience we have had has been in cold weather, with the barn temperature at 50 degrees, and it may be different next summer — but so far this is one of the best smelling barns ever — mostly due to a battery of three big ventilating fans.

Comments on this whole deal would be incomplete without mention of the things which don't work according to schedule. First off, we have a "wrong-way Corrigan" — a cow that insists on lying in the free-stall wrong-end-to. She goes in correctly to eat, then backs out, turns around, and backs into the stall to lay down. It's easy to get her up to move, but not to get her convinced there is a better way to face.

Due to difficulty in finding sawdust, and due to a lot of mouse damage to a mow of baled straw (our mice haven't learned that the twine was treated to repel vermin), we have been chopping straw to use as bedding in the section where we have a curb and no rubber

(Continued on next page)

mats. So far, we like the straw better than sawdust.

On the mats we used sawdust for a while, and now use nothing except whatever silage we throw out of the mangers. We think the mats are very much the ticket if they weren't so expensive. Maybe when we consider no bedding costs are involved with them, we will decide they aren't too high-priced in the long run. Somebody some day will make a continuous mat like an endless belt. Then it can be just rolled out for the length of the barn, cut off, and another strip rolled out for the next section. I can't see why this wouldn't be the way to do it rather than to cut each mat to fit a stall.

Watering

We have our watering devices — water buckets and tanks — on the ends of the strings of stalls. This leads to the end stalls being wet from spilling and slobbering. Possibly it may end up being better to put the water in big tanks at the end of the barn away from the parlor.

By scraping off the beds twice a day (about a 5-minute job), it's been no trouble to keep the cows cleaner than they ever were in stanchions or tie-stalls. Of course, we have two old gals who were always dirty in the old barn and they still are. Guess it's just as it is with some people — there are cows who just don't want to make the effort.

We are washing the udders with a hose and warm water. This sure beats the old system of a pail of hot water and a cloth or cow towel. The milk strainers show we are doing a good job of getting the cows clean before we begin to milk. We are pretty pleased about this part of the job.

GOALS

One of the most compelling forces for a youngster who is trying to become a track star is to have a goal — not just to make the team but specifically to run his event in a given time by such a date. Having a realistic goal will help him to progress much faster than to merely try to win. Isn't this equally true of almost everything we do? I'm impressed by the fact that so many successful farmers have specific goals against which they can measure achievements.

Friend Bob Greig of Dutchess



"I feed my cattle for only pennies a day... ten thousand, to be exact."

American Agriculturist, February, 1965

County, New York, says he expects to grow 1,000 bushels of apples per acre within the next ten years. He's moving toward it, too. He's planting closer, using semi-dwarf trees, fertilizing and spraying the best he knows how, and now has supplementary water for irrigation. In short, he's going all-out to make his goal, and he'll likely make it; certainly he will produce much more per acre than without a specific goal.

We can likely agree that we have all too often had improper goals. High milk production per cow is a goal of many good dairy-men, but a better goal is production per man. It's how much is shipped per man that determines the profit, so this is the logical

goal. Likewise, it's eggs per man to look at more than eggs per hen. Butterfat per cow is of little use as a goal simply because we don't get much reward for the fat. Milk and more milk per man is a proper goal, and on this one the sights can be pretty high. Close to a million pounds of milk per man has already been accomplished, so goals may well be close to that figure.

Crop yields continue to edge upward to the point that if our goals and achievements aren't higher than they were 5 years ago something is wrong. Thirty tons of silage per acre sounds like quite a lot — and it is — but certainly enough people are growing this much to make it a logical, reason-

able goal for all of us.

If we are going to set up goals, we may as well go whole hog and have an income target to shoot at. Of course, it's hard to realize such a goal, but we'll have more income and a better standard of living if we plan it that way by shooting for a definite amount.

Water pollution and sanitation rank as the number one rural health problem. A survey conducted by health educators and home economics leaders in 44 state Extension Services indicated that assurance of an ample supply of uncontaminated water for family and farm use is an increasing problem not only in rural fringe areas near suburban developments, but in the more remote farm areas as well.

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across the country, were proved best for sediment removal in both gravity and pipeline operations. They also provide a simplified spot check for mastitis. And, with J & J filters, you have a choice — disks, rolls, socks, tubes, squares — all J & J top quality and each designed to meet a specific need. No "bargain" substitution will give you the assurance of cleaner milk, reduced risk of rejection that Johnson & Johnson quality filters provide.

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What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accom- panied by widespread damage.	

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

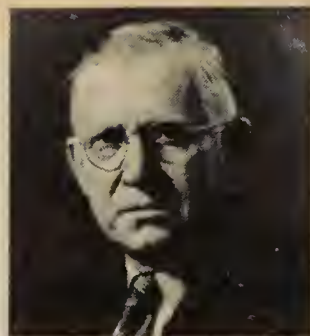
FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Jamestown	WJTN	1240 kc.
Auburn	WMBO	1340 kc.	Niagara Falls	WHLD	1270 kc.
Binghamton	WKOP	1290 kc.	Olean	WHDL	1450 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Sayre, Pa.	WATS	960 kc.
Elmira	WELM	1410 kc.	Schenectady	WGY	810 kc.
Glens Falls	WSET	1410 kc.	Syracuse	WOLF	1490 kc.
Gloversville	WENT	1340 kc.	Walton	WDLA	1270 kc.
Hornell	WWHG	1320 kc.	Utica	WBVM	1550 kc.
Ithaca	WTKO	1470 kc.			

Northeast Radio Network Ithaca, New York



TOO MANY FARM ORGANIZATIONS?

by Amos Kirby
New Jersey Editor

"Do we have too many farm organizations in New Jersey?"

That is a question often asked. In the New Jersey Farm Bureau Directory of Farm Organizations are listed over 100 groups, all having something to do with farming. This list does not include the 110 subordinate and 15 pomona granges, 20 county boards of agriculture, the State Department of Agriculture, the Agricultural College, the U. S. Department of Agriculture, and a few others.

Report — Just before the close of 1964, the Rural Advisory Council, a division of the New Jersey State Department of Agriculture, issued a report on this complex problem. A 37-page document, it is devoted to a searching look into the county boards of agriculture, their achievements, present status, and what may be their future.

Members of the Rural Advisory Council are: Phillip Alampi, Raymond Baker, Louis Calvanelli, Mrs. Robert Crane, Lewis De Eugenio, David Goldberg, William Haffert, Jr., Carleton Heritage, Dr. Leland G. Merrill, Jr., Franklin Nixon, Frank Pettit, Samuel Garrison, executive secretary, and Dr. Frank App, consultant. The late William B. Duryea was chairman.

Recommendations — The Council made eleven recommendations, ranging from expanded programs and activities (including off-farm cooperation) to developing established agreements with the New Jersey Farm Bureau, the State Department of Agriculture, and the Agricultural College.

There will be other reports later dealing with other organizations. This is not an attempt to eliminate any; it is merely an effort to make those that are rendering worthwhile services a part of the overall organization picture.

Water!

Two years of water shortages finds more growers making plans this winter to install irrigation systems before the 1965 crops are planted.

North Jersey has had less rainfall during the past two years than has South Jersey; nevertheless, South Jersey (the coastal area) where irrigation has grown by leaps and bounds in recent years, is taking a close look at additional sources of water. This is the fruit, potato, and vegetable-producing section.

Results — Irrigation has made the difference between a normal or an unprofitable yield on potatoes, tomatoes, peaches, and some other crops. Two crops that stand to show a long-range effect of the drouth have been asparagus and fruit. Not enough irrigation has been used on asparagus to show any appreciable increase. Ray Battle, agricultural agent in

Gloucester County, is convinced that non-irrigated or insufficiently-irrigated fruit and asparagus may show the effect of dry weather for two to three years.

Tomatoes — Irrigation has proved its worth on tomatoes. While the official records were not available when this was written, information from growers indicates that many growers have had from 25 to 30-ton yields where the fields were irrigated.

Potatoes — The white potato industry is probably as completely irrigated as any of the major crops grown in New Jersey.

As we see the situation today, irrigation will be the major change in farming in the Garden State in 1965. The big question is whether New Jersey has the surface and underground supply of water to meet the increased demand if there is another dry year ahead. The feeling exists that the full capacity has not yet been reached.

Asparagus

If present plans develop, South Jersey will have its first central packing plant on asparagus for the fresh market in the Swedesboro area. John Lee Womack, manager of the Swedesboro Auction, is heading up the project, with the support of the Asparagus Council, the State Department of Agriculture, the College of Agriculture, and other groups.

New Pack — In place of the standard 2½-pound bunch that has been used for 50 years, asparagus will be packed in 1½ to 2-pound bunches to meet consumer demand. It has been found that many small families cannot use the 2½-pound bunch, but would buy in smaller amounts.

Harden Farms, a California outfit (no connection with the Harden Farms that recently dispersed a fine dairy herd at Camden, New York), has been moving into Eastern markets with this new consumer pack. In fact, during the 1964 season Harden Farms sold about a carload a day in Philadelphia, within 20 miles of the center of the Jersey asparagus area.

Grange Elects

The New Jersey State Grange has elected a new Master. He is William A. Schlechtweg, Sr., Monmouth County.

Mr. Schlechtweg is a successful fruit grower, operating 100 acres in cooperation with his two sons, William Jr. and Alfred. For more than twenty years he has been active in subordinate and pomona granges in Monmouth County. He has been president of the County Board of Agriculture, a director of the Federal Land Bank, the Englishtown Branch of Agway, the New Jersey Apple Institute, and interested in other community affairs.

when the cow is in heat. The inner surface of the vulva will also be moist and more red than usual. If you have a lot of cows you can't spend enough time watching to see every one stand, look for disturbed hair or mud on the rump of cows in heat. Cows eating in outside bunk feeders are too busy to ride. Observations are best made when they first go out, or later when nothing else takes their interest.

About forty-eight hours after a cow has been in heat a bloody discharge is usually noted. Let's make this clear right now; this does not indicate in any way whether a cow has or has not conceived. Heifers seem to discharge more blood than older cows, but seldom on a normal heat does a cow not discharge a tiny amount of blood.

Although the best time to breed is toward the end of the standing heat, cows are said to have one chance in four of conceiving if bred at the time blood is first seen. If you don't see heat at all but do see blood, you can take a chance at breeding eighteen or nineteen days after the appearance of blood.

Your veterinarian can usually tell if a cow is in heat by examining her, but even then he could be a day early or a day late. I hate to overwork the inseminator, but I'd rather breed a cow by guess Monday, and on Wednesday find her standing and have to breed her again, than to wait and then on Wednesday see blood. This happens all too often.

A small bonus given a herdsman or hired man for every heat detected can pay for itself time and time over. Every cow you get bred back within the year, and every cow you have freshen during the period when milk is worth more will pay you a bonus.

MOVING? Send new and old address to:
American Agriculturist, Poughkeepsie, New York.

CREEP FEEDING OF PIGS

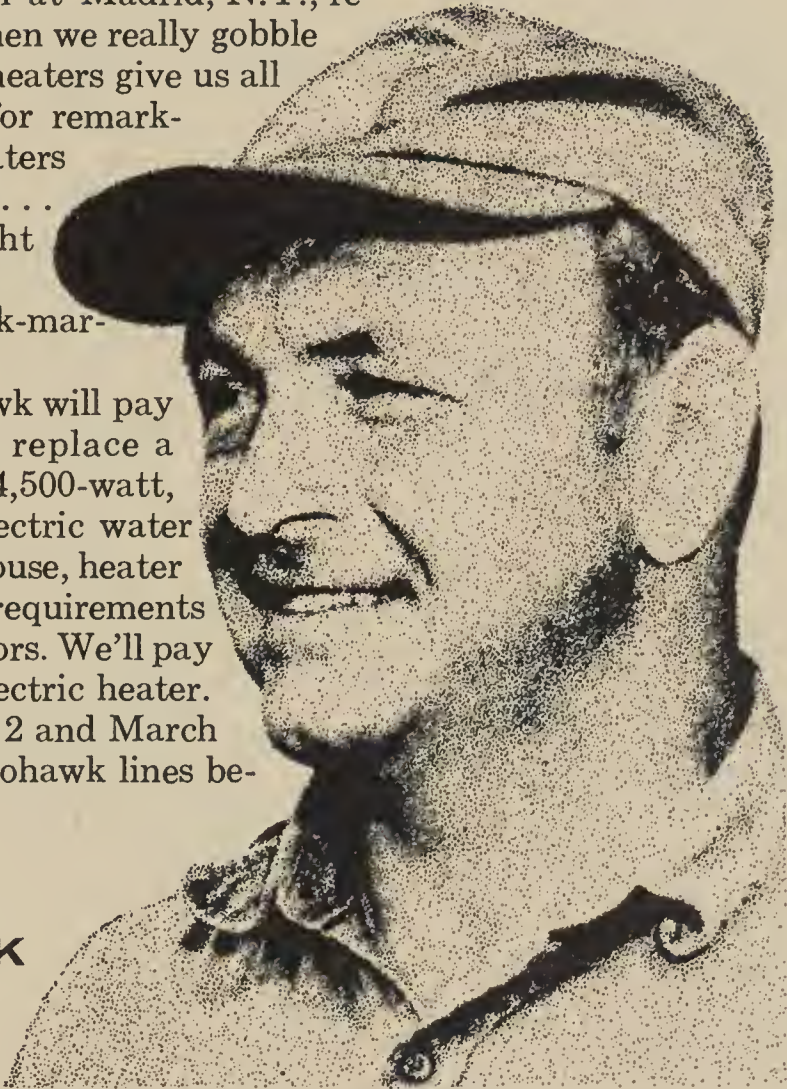
IN ORDER TO test the suggestion that the use of pellets instead of meal produces heavier pigs at weaning, nineteen litters at the University of Oregon Swine Center were placed on creep feed of identical composition, either in the form of pellets or meal. At ten days of age, a pre-starter containing 22 percent protein was offered either as meal or pellets. The feed was placed in shallow, flat troughs with low sides, in an area where the pigs walked each day. At about the time they had eaten an average of 4 to 5 pounds of pre-starter, they were switched to a started feed with a protein content of 18 percent. The litters that had been started on pellets were continued on them; those started on meal continued with this type feed. By eight weeks of age the meal-fed litters had consumed the most creep feed over the entire period and outweighed the pellet-fed group.

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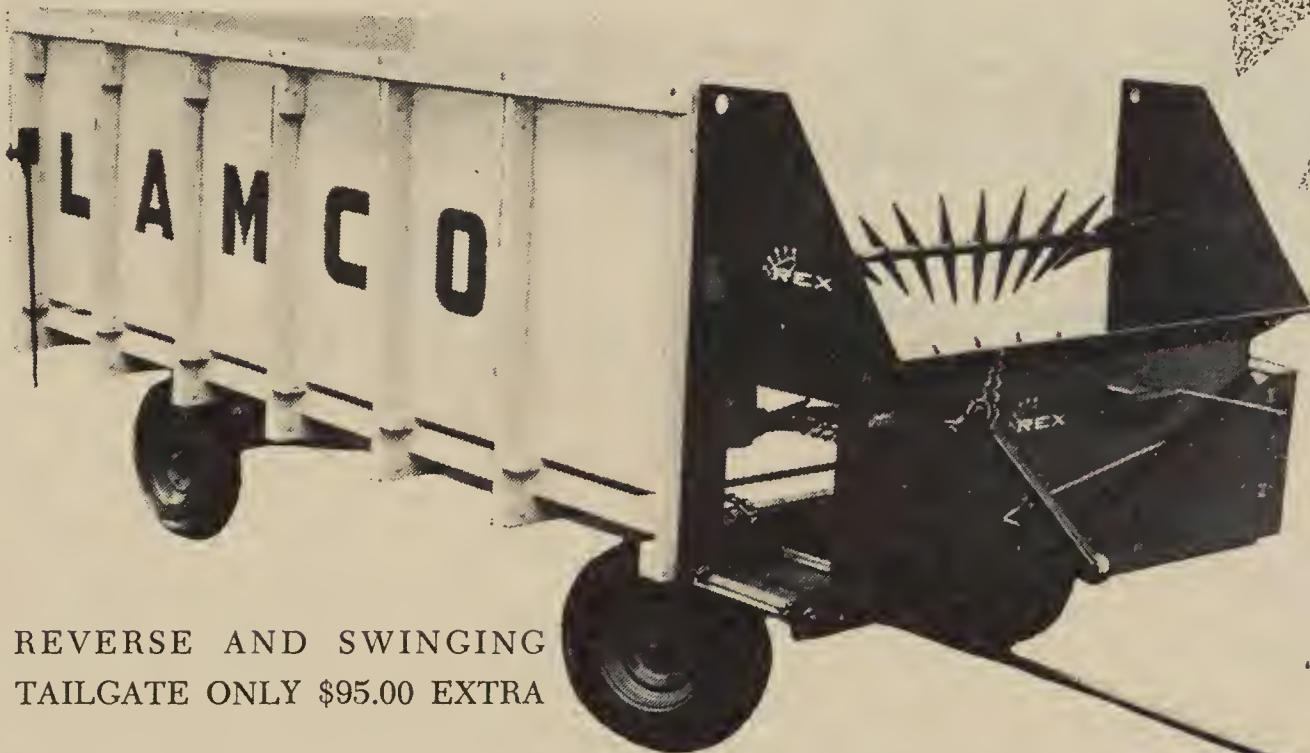
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THE FARMER IN MIND



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Roger Forrence and pallet boxes used for harvesting apples.



QUALITY AND QUANTITY FRUIT

by Hugh Cosline

“WE CONCENTRATE on growing and selling quality apples for the fresh fruit market,” says Roger Forrence of Peru, New York. “The climate in the Champlain Valley produces a Mac with high color. In fact, we doubt that we would be growing apples if our only market was for processing.”

After visiting the Forrence orchard, I might add that in addition to producing quality, the three brothers — Roger, Bill and Virgil — produce quantity. With 331 acres in production, and 50 acres being set, they harvest around a quarter of a million bushels.

During the summer of 1964 the fruit was damaged by hail, and as a result more than the normal volume is being sold for juice, or as a “utility” grade.

As is the case with all types of farming, there is a continual battle to keep production costs low.

Big Equipment

“We are coming to the use of big machinery,” said Roger. “More and more we are putting apples into pallet boxes in the field, and handling them with a lift fork. These have removable sides to make packing into retail containers easier. Most apples are packed into cartons with 80, 100, 120 or 140 apples (depending on size), or into cellophane bags holding three to five pounds.”

A lot of apples are stored. The Forrence boys have three CA storages holding 60,000 bushels, mostly “Macs.” They have a cold storage with boxes stacked 19 high (with a fork lift) with a capacity of 120,000 bushels — and they rent storage for 20,000 more.

Considerable progress has been made in harvesting fruit for processing, but harvesting apples for the fresh market is still a hand job. The year ’round work force is seven or eight men, but in the fall from 300 to 350 men and women are picking and packing apples.

“There isn’t too much we can do with labor costs,” said Roger, “but we do try to cut production costs in several ways. We try for high yield per acre. We set trees closer than in former years; we use leaf analysis to guide fertilizer applications; we prune trees every year, mostly with hand saws rather than pneumatic pruners. Although it adds to labor costs, we ‘spot pick,’ taking off only the ripe apples, which requires going over the trees several times.”

As I was leaving, Roger made these observations:



“It seems to me that farmers do too much ‘talking down their own vocation.’ All business has its problems, but too often our city cousins get a warped idea of agriculture. Then, I believe that farmers must do more advertising of their products. I believe in our apple advertising program. The New York-New England Apple Institute gives us full value for the money we spend.”

Virgil Forrence and Sons is big business in farming. The business is incorporated; in fact, I understand there are three corporations involving different phases of the business. However, it is still managed by one family.

NEW FRUITS

Four new fruits have been named by the New York State Agricultural Experiment Station at Geneva. The Hudson cherry is a sweet cherry that ripens after the normal season ends; following Lambert, this would mean the season could be extended about ten days. It is medium-sized, black fruited, with flesh that is slightly tough when dead ripe; the flavor is sweet and good.

Another cherry introduction is Ulster, a mid-season variety ripening just a few days after Schmidt (and more productive than it). The fruit is large and very dark in color, firm fleshed, crisp, juicy, sweet, and of good quality.

Elderberry

A commercial elderberry industry is slowly developing in New York State, and the Station’s new introduction is York. It is indicated to be more productive and larger-berried than any other named variety.

Last but by no means least among the new introductions is the Aurora pear, a high-quality dessert pear ripening just after Bartlett. This is thought to be of special value to home gardeners and growers of fresh fruit because of its handsome appearance and high quality. Its suitability for processing is not yet known. It is large, regular pear shape, bright yellow lightly overlaid with russet; it has a longer storage and shelf life than Bartlett.

Nursery stock of all these new varieties can be obtained by writing to the New York State Fruit Testing Association, Geneva, New York 14456.

Northeast milk pool
(Continued from page 26)

like Boston, Lowell, Lawrence, Haverhill, Worcester, Springfield, Providence, Hartford, New Haven, and Bridgeport, which lie within 50 miles of each other, to become one single, big market. It has become increasingly difficult, during recent years, for these five separate order pools to function without complicated and unrealistic rules to determine which plants are pooled under what federal order. In many instances, individual plants have flipped back and forth from one order to another . . . sometimes by accident, and often by design. The result has been confusion and an erratic and inequitable pattern of blend price differences among the five orders.

Finally, early in 1963, various proposals were made to consolidate these orders for the purpose of eliminating the confusion. The new Massachusetts-Rhode Island Order is the result of a hearing held to consider these proposals. Mutual Federation of Independent Cooperatives participated in that hearing. Some producer groups (including the Mutual Federation) believed that Connecticut also should have been included in the new regional market pool.

The Future

The new Massachusetts-Rhode Island regional market is a long step in the right direction. But the great abundance of experience with market-wide pooling in closely-integrated markets of the North-

east during the past 30 years clearly indicates that the latest move will not be the last.

Northern New Jersey was a thorn in the side of producers in the New York pool for the first 20 years of operation of the New York Order. Unregulated milk, shipped to North Jersey from New York and Pennsylvania, caused similar inequities in producer returns, and brought confusion and instability to the New York market during that period.

Various solutions for these problems, short of expanding the marketing area, were tried without success. Then, in 1957, after an abortive attempt in 1952 and a bitter struggle when it was done, the New York marketing area was expanded to include northern New Jersey and many of Upstate New York's smaller markets. The result has been a remarkable exhibition of stability.

Separate Order

Connecticut, we believe, will now have considerable difficulty in maintaining a separate order. It is the "nut in a giant nutcracker," one arm of which is the New York-New Jersey order and the other the new Massachusetts-Rhode Island Order. In 1959, at a hearing to consider federal milk regulation in Connecticut, Mutual Federation recommended that Connecticut be added to the New York - New Jersey Order rather than being given another separate order.

In 1958, when a separate order was also being considered for southeastern New England, Mu-

tual Federation recommended that the area be added to the Boston market. The wisdom of that recommendation is now being recognized.

Northeast Order

Connecticut has strong natural milk marketing ties to both the New England and the New York - New Jersey markets. In time, these relationships will be demonstrated in the malfunctioning of Connecticut's separate order between the two larger regional orders. Connecticut may well become the "connecting link" that will bring the future consolidation of these two regional orders into a single northeastern order.

In fact, the trend toward larger marketing areas and more market-wide pooling, which has been the history of federal milk marketing orders in the Northeast and throughout the nation as well, point to the creation of an even larger single order for the Northeast in the future. The new Delaware Valley Order issued this year with individual handler pools, will prove to be no more than a stopgap to the right type of regulation for this large marketing area which is adjacent to the New York - New Jersey marketing area.

In fact, the milk supplies for all of the eastern Megalopolis (the string of contiguous metropolitan areas in the Northeast stretching from Washington, D. C. to Portsmouth, New Hampshire) lie north and west of this urban-suburban belt. Class II and Class III prices

have already been largely synchronized in this area. The same Class I price formula could just as well serve the entire northeastern seaboard, applied to a basing line extending from Washington to Boston through all the major cities in the Northeast. Such a line would come remarkably close to being a straight line.

Bitter Fight

A single northeastern market pool will not come about overnight. Many local producers and handler groups don't want it. They will fight it to the bitter end, just as regional pooling has been fought during the past 20 years by suburban groups in Rhode Island, Massachusetts, Connecticut, New Jersey and in the Philadelphia market. But regional pooling will become the ultimate answer. We have seen it develop through five stages in the Northeast.

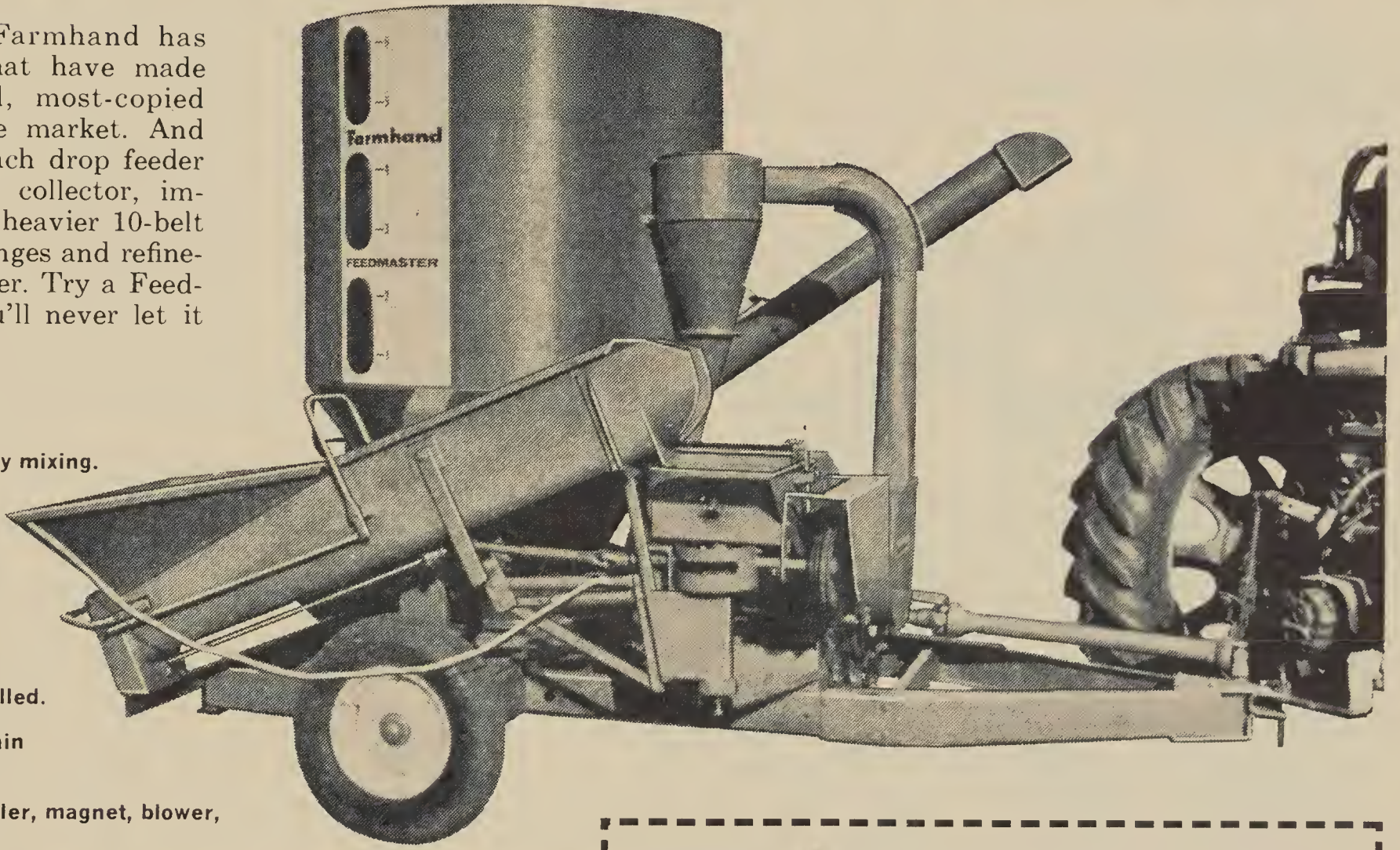
VIEWPOINT!

Delegates at the last annual meeting of the New England Milk Producers' Association called on the organization's Board of Directors to request a limited hearing, at the appropriate time, to consider expanding the Massachusetts-Rhode Island market order area to include Connecticut. They indicated that as a result of the flow of milk between these two parts of the natural New England milk market the completion of the merger is inevitable.

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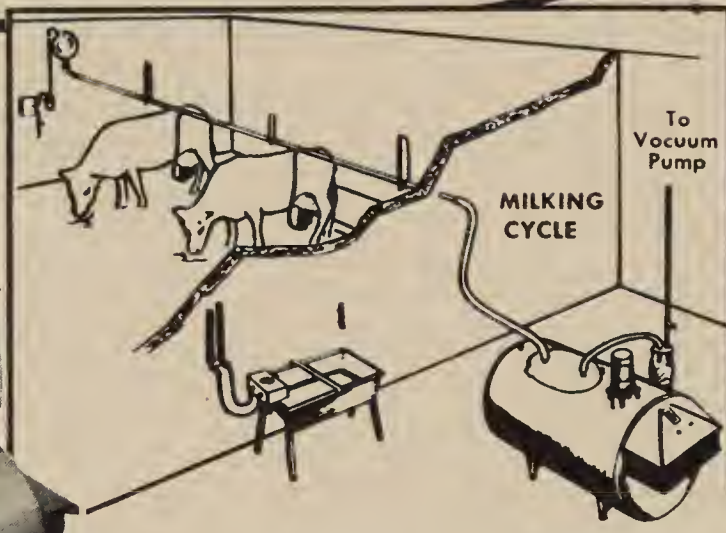
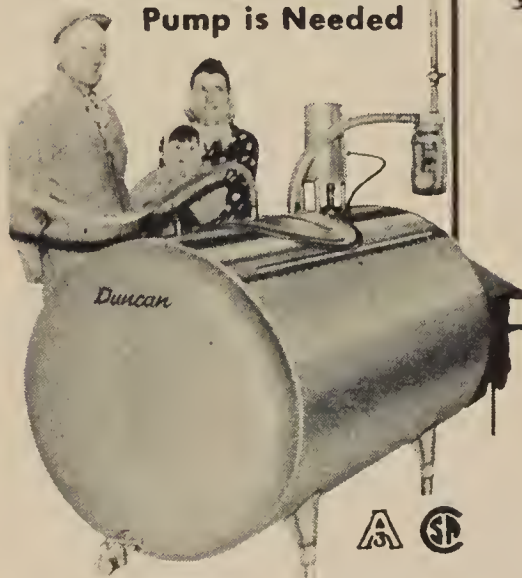
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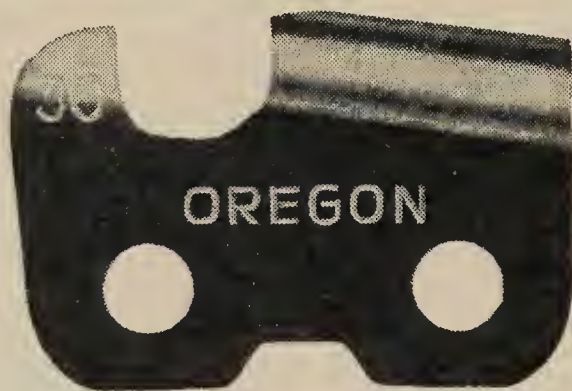
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Left to right are Gary, Donald, and Richard Gaige; Charles Morris and Donna Gaige at right. The house was built many a year ago; the windrower is typical of the up-to-the-minute mechanization of this farm.

This Century Farm Keeps Rolling Along

by Ed Eastman

FOR MANY YEARS the New York State Agricultural Society has had the project of honoring farm families who have had the same farm in family ownership for 100 years or more. No other organization has a better right to honor Century Farmers than does the Society itself, which was founded in 1832.

I thought you readers would be interested in one of these families, so I visited the Morris Farm at Alpine, New York, some 12 miles or so west of Ithaca. This farm and family were of especial interest to me because American Agriculturist in 1929 named the late William H. Morris "Master Farmer." To get this award, not only must the man be an outstanding farmer; he must be a good father and an active leader in his community, in short, an all-around citizen.

William Hiram Morris certainly was all this; but good a job as he did it was no better than the one his son Charles is doing now. Charles and his son-in-law, Donald Gaige, have a farm enterprise that is just about the best I have seen in years.

Original Farm

On the original farm of 60 acres, purchased in 1857 by Robert Morris, Sr., there was a little red house, which is now the kitchen of the main house where Mrs. William Morris lives. The farm now has 550 acres, over 300 of which are tillable. Charles and Donald have fine homes near the original Morris homestead.

We went first into the big modern dairy barn where there are stalls for 60 milkers. This herd was then producing a ton of milk per day, with an average annual production per cow of 13,000 pounds. Artificial breeding is one reason for the high production, as it is on thousands of dairy farms. The milk is piped directly from the milking machine into the big cooling tank, where it is kept at just the right temperature... and from which it is picked up by the milk tank truck. The workers

never handle it — never even see it until it is in the tank.

Stepping to the foot of the silo which opened on the stable, Charles started the silo unloader. I thought back to my own farm days when twice a day I had to climb up and into the silo and pitch silage down by hand.

Legume Hay

Hay produced on the Morris farm is heavy and high in quality, containing a high percentage of alfalfa. Seedlings are topdressed with about 250 pounds of 0-20-20 or 0-15-30 after either the first or second cuttings.

Charles believes in using a silage corn variety that will mature in this climate because it will furnish more total digestible nutrients. On corn he applies about 300 pounds to the acre of 13-13-13, plus the manure from all that big herd of cows and youngstock.

Out of that fine herd of youngstock on the Morris farm, there were enough not only for herd replacements but a surplus for sale. At least \$5,000 worth of stock is sold from this farm yearly.

(Continued on page 45)



Don Gaige stands beside land roller of his own design, made years before such equipment was commercially available. It has wheels permanently fastened inside roller that is 50 inches wide and 48 inches in diameter.



County Agent Bill Andrews with Donald Moore of Malone, New York.

DONALD MOORE of Malone, New York, is cooperating with the Agronomy Research Program in Northern New York. He's also in his fifth year of a farm management study program under the leadership of Franklin County Agent Bill Andrews.

Don says: "Putting in 1,250 feet of four-inch tile drains gave the most spectacular results of all the changed practices." The soils of Northern New York tend to have wet spots that hold up spring work; tiling moves planting dates up by ten days to two weeks.

More Corn

With this "extension" on the growing season, Don has found that he can get corn to the hard dent stage by the first of October (the date he began ensiling this year). He has a 16 x 48-foot silo, filled 40 feet of it with corn from 12 acres. Corn is slated to go on the same 12 acres again in 1965.

He experimented with 30-inch and 36-inch intervals between corn rows, observed that: "The 30's seemed to conserve moisture more

AGRONOMY PROGRAM

during dry weather, but they matured slower than the 36's." He cultivated the "36's" once, but did not cultivate the narrower-spaced rows; Atrazine was used on a complete-coverage basis over the entire corn acreage.

In 1964, Don chopped his oats rather than harvest them for grain. He'd like to seed forage crops without using a nurse crop, and therefore watches closely the two acres on his farm being used for experimentation in doing just that. Bedding on this farm consists of purchased straw and sawdust.

Early Haying

The Moores began haying in 1964 on the 13th of June and had 6,000 bales in the barn when they finished first cutting on June 26... and with none of it ever having gotten wet! This top-quality hay, plus well-matured corn silage and grain, has helped push up the herd average of the 34 Holsteins... from 9,000 pounds two years ago to the latest Owner-Sampler record of 11,273.

The Moore farm is only one of many in the North Country where the basis for management decisions includes new information and techniques from the Extension Service and College of Agriculture. Professor Bob Lucey of the Agronomy Department at Cornell is heading up a special effort to find better agronomic methods for use in northern New York State. —

G.L. Conklin

Century farm

(Continued from page 44)

In visiting with Mrs. William Morris, I was much interested when she told me that her husband's father built under-drainage ditches from stone quarried on the home farm. Some of these stone ditches are still doing good service. Charles said that he had laid many miles of tile ditches.

Americans have always been a restlessly-moving people, so there is something really fine about a family which has had its roots on the same farm for over a hundred years. Charles said that he is proud of the fact that his parents were recognized as Master Farmers. He added, however, that it is not enough just to live on the same farm for a century... that the farm and home, and the whole operation, must be kept up with modern methods and with the great changes in agriculture.

Charles and his wife have three daughters—and each of the daughters has three children. We all agreed that there is no place like the farm for raising children.

It is very apparent that Charles and his wife have had and are having a full and happy life. I asked him what he thought the

chances are for a young man and his wife to get started in farming now. He said it is getting harder, chiefly because it requires so much capital.

Were I to sum up why this farm (and others like it) is successful in spite of low prices for farm products, I would give the following reasons, not necessarily in order of importance:

1. They keep adequate records. Farming is now a bookkeeping business.

2. They plan their work and make full use of their labor every day. Incidentally, Charles said that they plan to be through each day on or before 6 p.m. This careful planning of work makes it possible to have only one hired man for a really big operation... and the work gets done on time.

3. They buy comparatively little grain because of their hay and pasture, and because they mature their corn.

4. They keep cost of equipment relatively low and repair the machines themselves.

5. They sell thousands of dollars worth of surplus livestock, hay, grain, and seed.

6. They get high production from every cow and every crop.

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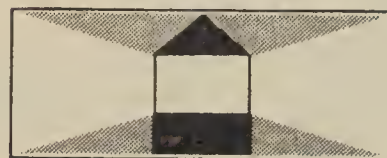


This is the same percentage of fat as in dried whole milk. Increasing to the 25% level, plus other improvements, offers these benefits:

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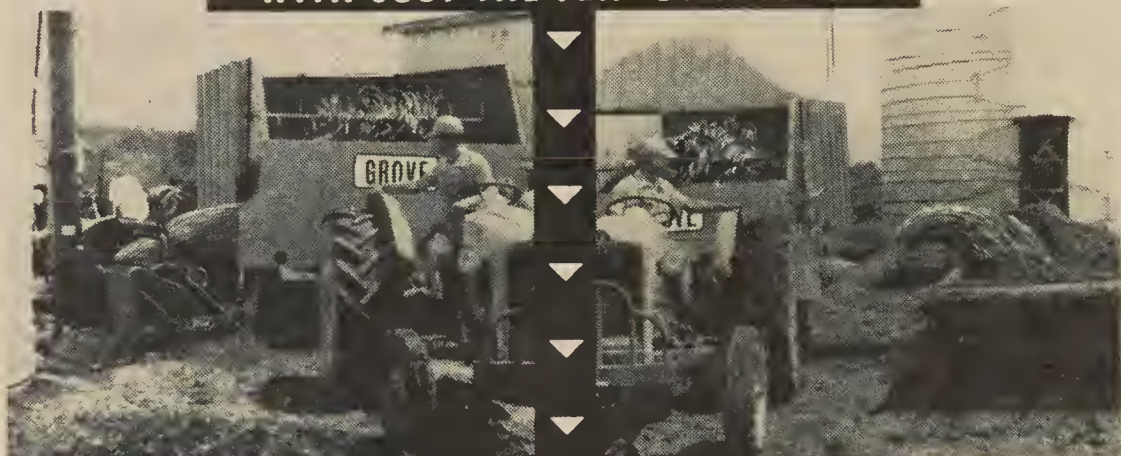


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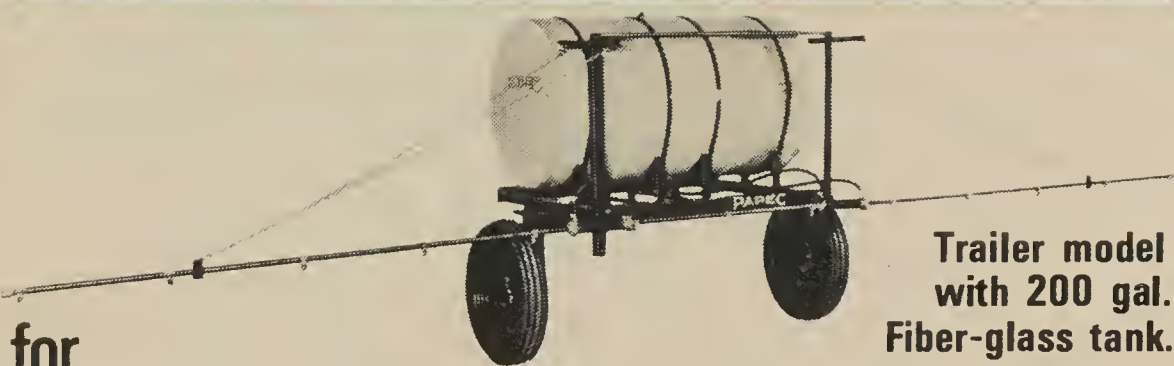
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Cows, chickens, crops . . . all are part of the farm business at Manorcrest Farms near Camillus, New York.

CORNERSTONES: QUALITY AND SERVICE

by Joseph Albino

ARTHUR W. HUDSON AND SONS (Charles, Harlan, Earl, and Olin), owners of Manorcrest Farms, Camillus, New York, recently built a new windowless, environmental-controlled layer house for 8,000 birds. They also converted two of their present layer houses to brooding houses because "we want to raise our own replacements in order to save money and obtain a maximum of immunity from disease."

Says Earl, who is responsible for the poultry operation of this poultry and dairy farm: "With this new building, we are able to return to growing our own replacements. Though we are putting in 8,000 layers, this new building will mean an increase of only 4,000 layers because two of our laying houses have been turned back to brooding houses."

The Hudsons, whose present 500-acre farm is located in an area of Camillus which is rapidly becoming residential, constructed the new layer house elsewhere (on Route 5 about four miles west of Camillus). This is because a liquid manure system is used and the resulting odor would not be tolerated by people living in the vicinity of the present farm where existing poultry houses are floor operations.

Water pits used for droppings in the new laying house are 28 inches deep and 7 feet 8 inches wide; will be drawn off into a tank-type spreader twice a year through a 12-inch concrete pipe. A home-made winch is used to move manure into the pipe.

One-Story Building

The new layer house is a one-story building 45 feet by 152 feet. Three 36 inch fans have a capacity of four CFM per bird; a static pressure gauge informs the operator concerning fan efficiency and fresh air flow into the building.

The walls are insulated with glass wool; Poly-Urethane insulates the ceiling. The four rows (each 130 feet long) of 12 by 20 inch cages are arranged in a full

stair step setup. There are four hens per cage.

The layers are fed twice a day (7 a.m. and 4 p.m.) and have 14 to 15 hours of light per day. Eggs are collected at 10 a.m. and 5 p.m. Annual production per hen was 242 for 18,000 layers in 1963.

When asked about egg volume in the new layer house, Earl replied, "I don't think we'll get as many eggs per bird as we do in our present houses; in fact, I will be satisfied to get 220 eggs per bird. I hope to get more, of course, and I'm going to shoot for more. I do think we are going to get better feed conversion in this new house because of the controlled environment. That is, there won't be the quick changes in temperature one finds in a windowed house."

The Hudsons grind and mix sixty percent of the feed needed by the layers, using their own grain plus concentrates; the remaining forty percent is purchased.

Replacement Program

Says Earl, "In order to obtain a variety of egg sizes to satisfy our market, we have replacements coming on year 'round. The different age groups are kept in different houses and on different floors. The replacements are brought in at twenty weeks of age."

(Continued on page 47)

Earl Hudson uses an electric feed cart, feeds 8,000 birds in 30 minutes.





Thar she blows! But this is a very special whale, one that disposes of liquid poultry manure at a prodigious rate way up on a sheep pasture at the Bill Maphis farm near Odessa, New York.

MOVING MANURE

William Maphis, who operates a poultry farm near Odessa, New York, is using an irrigation system to dispose of his liquid poultry manure. His flock size varies, but numbers between 30,000 and 40,000.

A five-inch intake pipe is dropped into the pits that receive waste from the caged layers; a thousand feet of four-inch pipe carries material from the pump to the irrigation nozzle that has an opening of 1 1/4 inches. Pressure is 100 pounds at the pump and about 70 pounds at the nozzle. The pump is operated by a pto from a tractor, moves 20,000 gallons per hour. The discharge is on a hillside in Bill's sheep pasture.



Here's the pto pump moving liquid poultry manure up the pipeline, visible at left, to the irrigation nozzle on the hillside.

Cornerstones

(Continued from page 46)

We don't keep any layer past fourteen months. We sell off these old layers to a poultry dealer who, in turn, sells them to Campbell Soups."

Egg Collection

The eggs in the older houses are collected twice a day, at 10 a.m. and 5 p.m. They are placed in plastic filler flats and stored in a 32 x 24-foot cooler overnight. The following morning they are unloaded into a twelve-case-per-hour washer, candler, and grader. Thirty eggs at a time are loaded into the washer by a vacuum lift. With the exception of two women employees to help with the morning egg processing, all the farm work is done by members of the family.

Eggs from Manorcrest Farms are marketed through dairy stores, food markets, hotels, and restaurants, in a radius of five miles. Seventy-five percent of the eggs are cartoned under the Manorcrest name and the remaining twenty-five percent go bulk in thirty-dozen cases.

Their cartoned eggs sell for eight cents above the New York City market, and their bulk eggs go four cents above the New York City Market. The Hudsons deliver three days a week, Monday, Wednesday, and Friday, using a 3/4-ton covered pick-up truck. They

own fifty percent of the egg displays in the stores where their eggs are sold.

Asked to what he attributed their success, Earl Hudson replied, "By putting in year-round replacements we are able to give the retailers and consumers a year-round production of all egg sizes. We can give the supplier the size, quality and quantity eggs needed. We stand back of our eggs. We guarantee what's on the box. We give service, too. If someone wants eggs we are right there to supply them."

"Our customers are satisfied. For example, there is an outsider trying to underprice us — but we still haven't lost one customer to him. Why? Because he can't give service and quality. Quality and service... those are our selling points!"

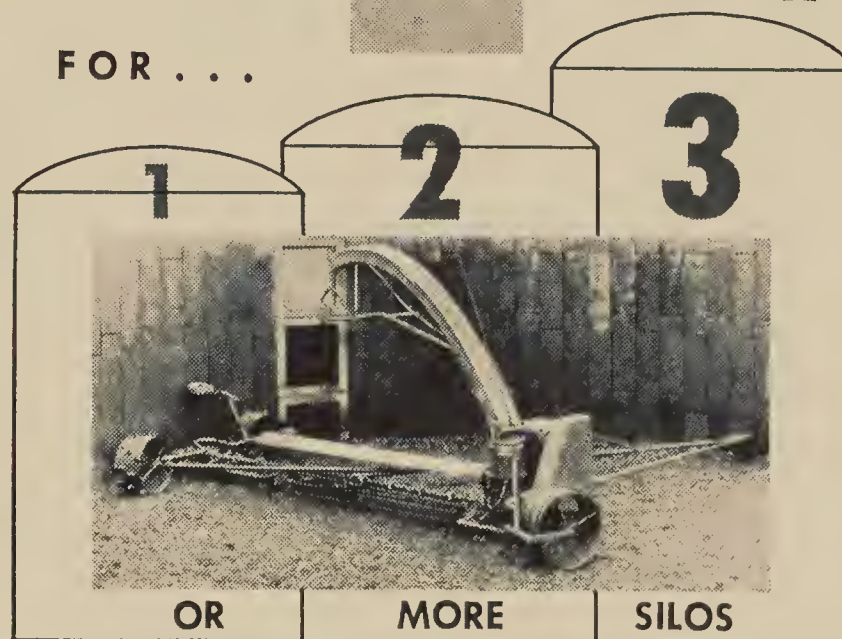
In addition to poultry, the Hudsons have developed their once-small dairy enterprise into a herd of 135 head of purebred Holsteins with a herd average of 16,000 pounds of milk and 558 of butterfat. Harlan is responsible for the dairy operation of the farm.

In 1964, in addition to the 500 acres of the farm, the Hudsons rented 150 acres. They grew 225 acres of corn, 85 of oats, 48 of wheat, and 95 of hay; the land not planted was used for pasture. On the newly-purchased farm where the new laying house is located, all 96 acres are tillable and were planted to corn last year.

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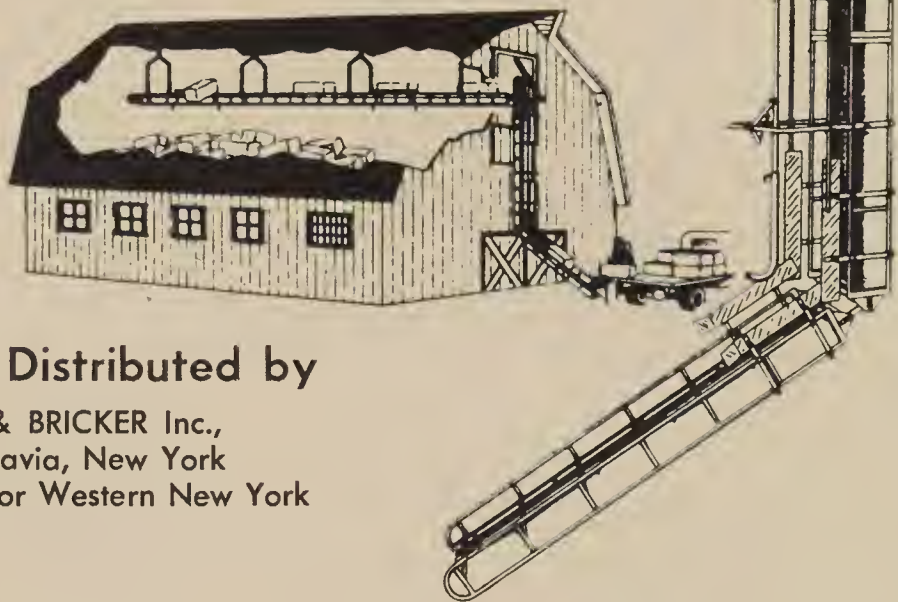
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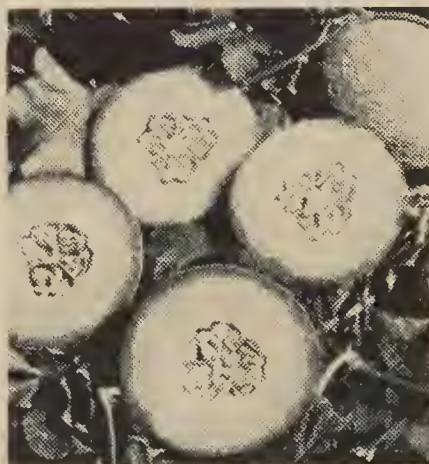


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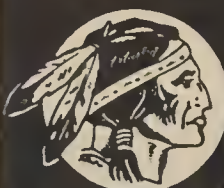
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Harris' WONDERFUL



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Together with our tour directors, the Travel Service Bureau of Needham, Massachusetts, we have arranged a trip that you will find hard to beat in the thrilling sights you will see, the quality of the accommodations, and the reasonable price. And, best of all, you'll have absolutely no travel worries on this trip—nothing to do but relax and enjoy yourself!

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On May 18, we'll dock at Southampton and travel to London by way of Stonehenge, Salisbury and Windsor. We'll have two full days to explore old London with a side trip through the English countryside to Stratford-on-Avon and Oxford.

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the snow-capped Alps. Sightseeing here will include the delightful village of Interlaken and Geneva.

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March Issue.....Closes February 1

April Issue.....Closes March 1

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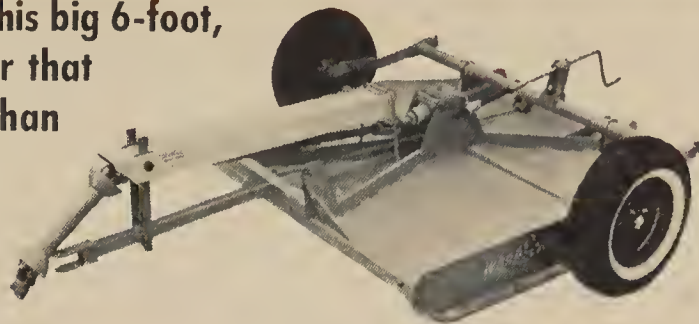
From 15 weeks to market, the bulls and steers were fed in two separate pens. Half of each group were implanted at 18 weeks of age with 36 mg. stilbestrol; both groups were full-fed ground ear corn and supplement, with mineral and salt free choice. Hay was limited to 2 lbs. per head daily. Each of the groups was marketed at about 840 lbs. Summarized, the results of the experiment were as follows:

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7. Steer return over feed was \$15 more per head than from bulls.
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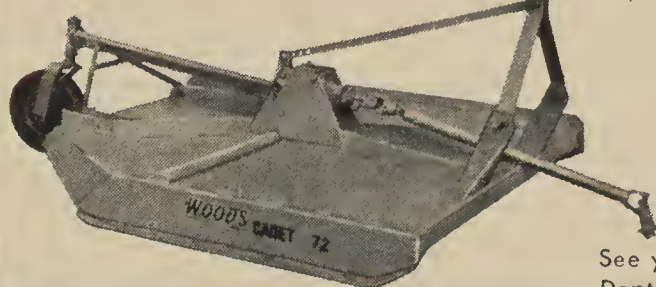
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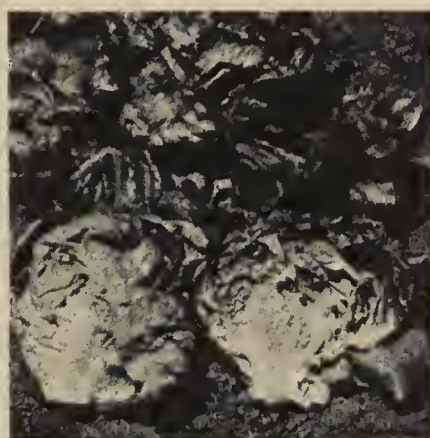
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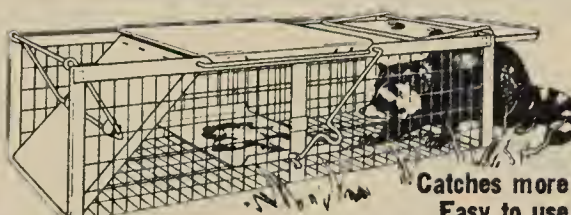


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Flower Ideas for '65

by Nenetzin R. White

SOMETIMES I THINK at least half the fun of gardening is the dreaming and planning! This seems to be especially true each year when the new award-winning flowers are announced. But then, of course, there is always great satisfaction in growing a nice planting of these new varieties.

Just four flowers, chosen from scores of new introductions, won the coveted All-America Award for 1965. For at least two years, these flowers have been grown in test gardens in 26 locations across southern Canada and in different climatic and soil sections of the United States. They were picked by 28 judges, and all four can be grown inexpensively from seed procured from any reliable seed house. Do get your orders in early, however, for there is always great demand for these outstanding flowers.

Winners For 1965

The first award winner is Delphinium "Connecticut Yankees," and I can hardly wait to grow this one. It's a new bushy or shrub-like delphinium in shades of blue and was developed by the world famous photographer, Edward Steichen. In France before World War II and since then in America, Mr. Steichen's hobby has been delphinium breeding. Developing this new bush-type plant is a great achievement and a real contribution to gardening.

Blooming the first year from seeds and enlarging to shrub-like form the second season, "Connecticut Yankees" grow 2½ to 3 feet high and have attractive foliage. By the second year, the bush should be equally as wide and carry 20 to 30 blooming spikes at a time. Individual wiry spikes have 15 to 30 large 2 to 2½-inch flowers. Airy and willowy, these spikes are exceptional for cutting and arranging, quite different from the tall, tightly-packed spires of Giant Pacific Strain. Colors are from light, medium, and dark blue to lavender, lilac, and purple.

Petunia "Appleblossom" is the new hybrid, large flowered petunia, salmon-pink in color, with white throat and ruffled, fringed petals. It is a 12-inch, bedding-type plant, resistant to disease, and free blooming in all kinds of weather. The plants are rather compact and cover themselves with all-season blooms, 3 to 3½ inches across. This is probably the most prolific blooming grandiflora and a very vigorous hybrid. Use it for cutting as well as in beds, borders, boxes and urns; its color is delightful.

Snapdragon "Floral Carpet Rose" is a rich, brilliant rose colored low bedding and edging beauty. Cushion-like plants, 6 to 8 inches in height and a foot across, make a

sheet of color, with 25 or more spikes blooming at a time. Called the first everblooming snapdragon, this very dwarf type re-blooms three or four times without cutting back, which is necessary to encourage a second flowering of other snaps. This new miniature is a first generation hybrid, accounting for its vigorous growth, dark green foliage, free flowering habits, and uniform rich color. Use this new snap for colorful ribbon beds, border or walk edgings, in rockeries, pots and boxes.

The fourth All-America award winner is Zinnia "Yellow Zenith," largest and most colorful of the informal zinnias. It is the richest yellow color imaginable and the third hybrid zinnia to be so honored. "Firecracker" red of 1963 and "Bonanza," the tangerine of 1964, are the other winners in this new giant cactus-flowered Zenith type.

"Yellow Zenith" is a hybrid and brings the largest cactus-flowered zinnia yet to our gardens. Zinnias, petunias, snapdragons, and marigolds are the four most widely planted flowers, and here is the most colorful zinnia! The flowers measure up to 6 inches across and 2 inches deep, yet the pointed petals give an airiness so that they do not appear heavy. Long, strong stems provide erect carriage and good cut flowers. The blossoms are borne terminally on 2 to 3-foot bushy plants, and these hybrids are found more resistant to mildew than open pollinated varieties. Use Yellow Zenith for cutting and for colorful beds and borders.

Previous Winners

It will indeed be fun to grow these new plants and some of the other more recent award winners, in case you haven't tried them yet. Along with "Firecracker" and "Bonanza" zinnias already mentioned, the smallest zinnia, "Thumbelina," is still in great demand. This was introduced in 1963 and is the only gold medal winner since 1950. Zinnia "Pink Buttons" is also most worthy to show and cut, growing 12 inches high, with perfect double salmon-pink flowers, about 2 inches across.

Celosia "Fireglow" is the first of its kind in cardinal red. Showy and brilliant for fresh or dried arrangements, it is 18 inches in height with combs over 6 inches across. Salvia "Evening Glow" is a sage in a rich salmon-rose shade with coral tongues. This shade has been one of the most popular in petunias for the last few years.

All of these flowers, and the others pictured here, are still relatively new. You will surely want to add one or two of them to your borders. A wonderful combination would be "Yellow Zenith" Zinnia, Delphinium "Connecticut Yankees" and Salvia "Evening Glow."

Penngift Crownvetch is a new perennial ground cover for beautifying slopes and banks. Photo: Kelly Bros. Nurseries.

Above: Thumbelina Midget Zinnia took AAS laurels a few years ago, but remains tremendously popular. Photo: Joseph Harris Co.

Right: Dark Opal Basil, shown here with Petite Yellow Marigolds, was a 1962 AAS selection... has proved to be a fascinating novelty. Photo: Joseph Harris Co.

These two 1965 All-America selections typify the outstanding choices made by AAS. The new Zenith Yellow Zinnia is shown at right with other Zenith hybrids developed in previous years... Princess, Bonanza and Firecracker. Next below is Apple Blossom, a pastel salmon petunia. Photo: Joseph Harris Co.



Here's a novel green zinnia named Envy with a color rarely found in flowerdom. Photo: Kelly Bros. Nurseries.



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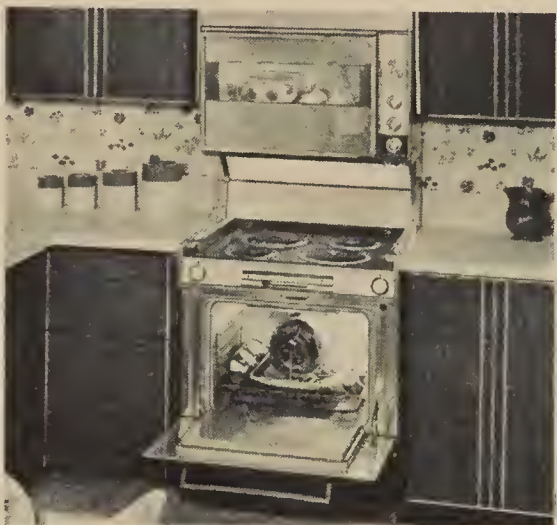
Shown at National Housewares Exhibit in Chicago last month:

Electric vegetable peeler that also shreds, dices, de-eyes, sections grapefruit, and removes kernels from an ear of corn.

Compact plastic fencing that stretches and curves to simplify outdoor enclosures.

More easy-to-clean cooking utensils including coated electric units and glassware.

A brand new electric can opener which separates can seam, eliminating cutter from contacting contents. Manufacturer claims there is no possibility of transferring fish or any strong flavor to other foods.



This compact, two-oven Americana Range by General Electric fits like a built-in. The lower oven is self cleaning and sports a rotisserie. Another feature of this 1965 model is a meat thermometer.

U. S. Metal-Plastics, Inc., of Laurel, Md., now has in national distribution a snow shovel coated with Tedlar (same chemical family as Teflon), a durable white plastic to which snow will not adhere. The shovel sells for only slightly more than aluminum snow shovels.



New foilware Gelatin Mold and Pastry Keeper available from Ekco Housewares Company. Eliminates "sticking" problem. Instead of placing mold in hot water to loosen gelatin, just flex cover and gelatin leaves sides of mold without sticking.

Dark chicken bones in no way affect the wholesomeness or flavor of the meat. U.S.D.A. poultry specialists say they are actually a sign of a young bird.

New frozen products reported by "Reynolds Wrap-Up" are teen-age frozen dinners, frozen breakfasts and diet dinners, and pre-cooked bacon designed to be heated and crisped in the toaster.

Reynolds also tells us that aluminum foil keeps frozen foods 10 degrees colder than other materials.

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Good Baking to You



by Alberta D. Shackelton

No. 3 – Yeast Breads

To make a perfect loaf of bread is a thrill for every cook! And what can match the fragrance of bread baking or the delight of the family when fresh, out-of-the-oven bread is part of a meal? For your own satisfaction and your family's pleasure, become a yeast bread artist.

A Good Loaf Of Bread

A good loaf of bread is light in weight in proportion to its size. It has good dimensions and is well rounded on top, with a thin, tender, uniformly brown crust (a little darker on top). It slices easily, and the slice is well shaped. Inside, it has evenly distributed fine, thin-walled cells and is free of large air bubbles or streaks. The crumb is moist and silky to touch with an "elastic" quality. The bread has a pleasing, well-baked flavor, slightly nutty, and free from bitterness or sourness.

Bread Making Methods

For the most part the simple, one mixing, straight dough, kneaded yeast method is preferred by most cooks and makes an excellent bread. Some cooks believe that the two mixing method (sponge and dough) makes a higher quality bread, and a few special recipes still call for this method.

A new and quicker way of making yeast breads is the batter method. Neither kneading nor shaping is necessary when using this method. More liquid is used in proportion to flour so that the dough is soft. The ingredients are simply mixed, beaten with a spoon or even with an electric mixer, poured into a pan, allowed to rise, and baked. Special care is required to prevent overrising or the bread will fall. Breads made by the batter method have a good flavor and tenderness, but a thinner crust and slightly more open texture.

Tips And Tricks

Flour. To make a good loaf of bread, it is essential to use at least some all purpose flour or a special bread flour in order to provide the right kind and amount of gluten. Breads will be compact and heavy if only whole wheat flour, rye, oats, bran, or cornmeal is used, although a few special recipes have been developed for making whole wheat bread from freshly ground whole wheat flour.

Yeast. Either packaged active dry yeast or moist compressed cakes may be used. Use packaged dry yeast before printed expiration date, refrigerated compressed yeast within two weeks. One package of yeast may be used in place of one yeast cake. Sprinkle or crumble active dry or compressed yeast in warm water (105°–115°) in a warm bowl or cup. To test temperature of the water, put a few drops on inside of wrist – it should feel comfortably warm, not hot.

Kneading. Proper kneading of the dough is necessary for good grain and texture in the finished loaf of bread. For easier kneading, allow the risen dough to rest covered 10 to 15 minutes on a lightly floured board. When sufficiently and correctly kneaded, dough will feel smooth and satiny and appear slightly blistered under the surface. It will not stick to

the hand and will spring back when lightly pressed with finger.

Rising Temperature and Time. An evenly warm temperature (80°–85°) is best for action of the yeast. To maintain this temperature, the covered bowl of dough may be placed in an unlit oven with a large pan of hot water

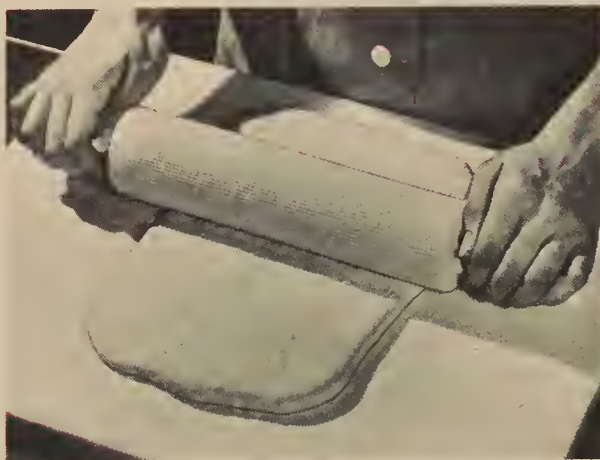
Also, the yeast called for in the recipe may be doubled for a quicker rising time. Test the doubling of the dough by pressing tips of two fingers lightly and quickly into top of dough. If dent stays, the dough is "doubled"; if it fills in, let dough rise another 15 minutes and test again.

After removing raised dough to floured board, let rest again for 10 minutes to make dough easier to form into loaves and help it hold its shape. Then, the formed loaves should again rise until doubled, but this rising takes a shorter time. Use the same "dent" test to tell when bread is ready to bake. If bread is baked before it is light enough, the loaf will be small.

Baking. For a good brown crust, choose a dull finished pan such as darkened metal, aluminite (dull finished aluminum), or glass. If you want to darken one of your shiny pans, place in a 350° oven for 5 hours.

Grease pan at least on bottom to facilitate

FOLLOW THIS EASY "ROLLED DOUGH" METHOD



STEP 1. Roll dough to uniform thickness, stretching by hand to form rectangle approximately 9" x 12". Make certain to break down all gas bubbles in outer edge of dough.



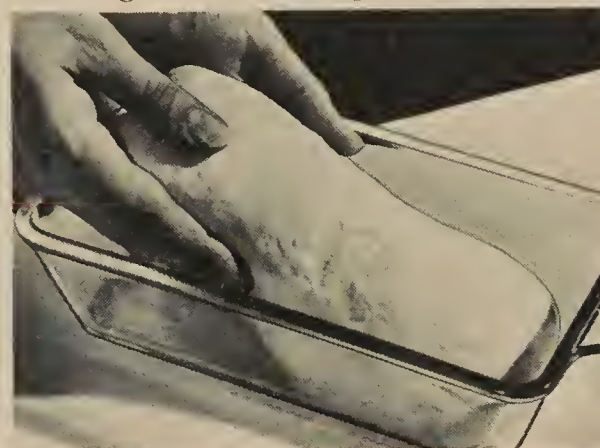
STEP 2. From upper edge, roll dough toward you, jelly roll fashion, sealing dough with heel of hand after each roll. (About four turns will bring you to last seal.) Be sure to seal final seam on bottom of loaf.



STEP 3. Seal ends of loaf by using side of hand to get thin sealed strip.



STEP 4. Fold sealed ends of loaf under, using fingers as shown above. Avoid tearing dough.



STEP 5. Place shaped loaf, with seam side down, in well greased bread pan. Press loaf against one side of pan.



STEP 6. Proceed in usual way for raising and baking . . . for a perfect loaf every time!

Photos: Robin Hood Flour

placed on the floor of the oven under the dough, or the bowl may be placed over a second bowl half filled with hot water.

The dough must double in bulk for a silky, moist crumb, and the length of rising time depends on many factors. One rising to double size in the bowl is usually enough, but if the dough is punched down and allowed a second shorter rising period, a finer texture and more flavorful loaf will result.

removal of bread. It is thought that loaf has greater volume if sides of pan are left ungreased. If bread browns too fast during baking, cover during last part of baking period with brown wrapping paper.

When using metal pans, bake bread in a quick hot oven (400°) – 1-pound loaves 30 to 45 minutes, 1½-pound loaves about 10 minutes longer. Use oven temperature of 375° for bread in glass pans. Place pans on center

(Continued on page 57)

American Agriculturist, February, 1965

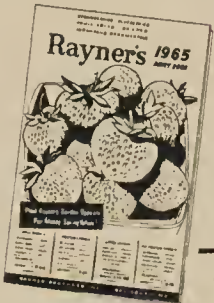


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(Continued from page 56)

shelf with space between to allow heat to circulate. If using two shelves, stagger loaves. To test for doneness, tip loaf out of pan and tap bottom or sides for a hollow sound.

Choice of Crust. For a crisp crust, cool uncovered after baking and do not grease. For a soft tender crust, brush with shortening after baking and cover with a towel. For a highly glazed crust, brush loaves before baking with an egg mixed with 2 tablespoons water. Remove bread from pan to cool to prevent it becoming soggy.

Basic Recipe

The following recipe will make two 1½-pound loaves of good bread, or one loaf bread and one pan cinnamon buns or plain rolls. Double recipe for four loaves of bread. If you like larger loaves, double recipe and form three loaves 1½ to 1¾ pounds each; use remainder of dough for a few rolls or a small loaf of bread.

WHITE BREAD

(2 loaves)

2 cups warm water
2 tablespoons sugar
1 tablespoon salt
2 packages active dry yeast
3 tablespoons soft shortening or salad oil
5 cups all purpose flour (approx.)
½ cup instant dry skim milk powder

Combine sugar and salt with 1½ cups of the warm water in a large bowl. Stir yeast into remainder of warm water, let stand until dissolved, and stir into first mixture. Stir in shortening and about half of the flour which has been sifted or well mixed with the dry milk. Then add remainder of flour, using just enough to make a soft dough, easy to handle.

Mix well with hands or a spoon and turn onto a floured board. Let rest, covered, for 10–15 minutes. Knead until smooth and elastic and return to the well greased bowl. Brush top with melted fat. Cover bowl with a damp cloth and let dough rise in a warm place until double in bulk (1 to 1½ hours).

Punch down dough and let rise again until almost doubled in bulk (20 to 30 minutes). Remove dough

to a floured board. (You will have about 2½ to 2¾ pounds of dough.) Divide into two portions and let rest covered for 15 minutes. Shape each portion of dough into a loaf, following steps in pictures. Place in greased bread tins, pressing loaf against one side of pan.

Let bread rise until sides of dough reach top of pan and center is well rounded (30–40 minutes). Bake in center of hot oven (425°), 30 to 35 minutes. Test for doneness, turn loaves onto wire rack, and treat crust as desired. Cool thoroughly before storing.

Notes: 1. If you want to make your bread with fresh whole milk, use 2 cups scalded and cooled to lukewarm in place of the 1½ cups warm water.

2. My family likes Cinnamon Buns made from this bread dough. Make one loaf of bread and roll second portion of dough into an oblong about 6 x 12 inches. Spread generously with soft butter and sprinkle with a mixture of 1/3 to 1/2 cup sugar and 1 teaspoon cinnamon.

Roll dough up as for jelly roll, starting on the long side. Cut into 12 slices and place, cut side up, in a greased 8 or 9-inch pie pan generously buttered and sprinkled with brown sugar and 2 tablespoons water. Let rise in warm place until doubled in bulk (about 30 minutes).

Bake in a quick moderate oven (375°), 18 to 20 minutes. Remove from pan to rack to cool.

For Honey Pecan Buns, follow above directions and place each rolled slice in a buttered muffin tin with 1 teaspoon honey and 2 pecan halves placed in bottom of each cup. Bake at 375° about 15 minutes.

3. If you wish to make 4 loaves of bread, double all ingredients.

Revised Bulletin

"Yeast Bread and Rolls" — Cornell Extension Bulletin 888, revised reprint October 1963. Single copies available free to New York State residents; otherwise, 10 cents per copy. Send request to: Mailing Room, Stone Hall, Ithaca, New York.



WINTER WELCOME

by Russell Pettis Askue

We hang fresh suet in a netted bag
Inviting chickadees to sing their name.
Unwanted, greedy starlings never lag,
But welcome whitethroats never seem so tame.
Four dozen English sparrows come to feed
For every pair of titmice that we see
Upon the perch from which they reach the seed
Provided for their breakfast, lunch and tea.

Bad money drives out good, the bankers say,
And one bad apple spoils a healthy bin.
With birds, as well, it seems to work this way,
With gentle juncos out, loud bluejays in.
Yet rowdy, lordly, friendly, shy and all
Are winter-welcome when they come to call.



BAKE UP THIS FROSTY RAISIN PECAN CAKE!



for compliments
sticky smiles—even thanks!

½ cup milk ½ cup sugar ½ tsp. salt
½ cup (1 stick) Fleischmann's Margarine
2 packages Fleischmann's Active Dry Yeast
½ cup warm water (105°-115°F.)
2 eggs

4 tsps. grated orange peel
¾ cups unsifted flour

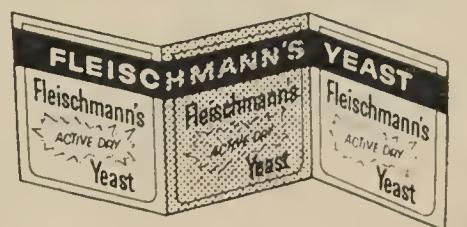
1 cup cooked chopped raisins (below)
½ cup chopped Planters Pecans
Confectioners' sugar frosting

Scald milk; stir in sugar, salt, margarine. Cool to lukewarm. Dissolve Fleischmann's Yeast in warm water in large warm bowl. Add lukewarm milk mixture, eggs, grated orange peel, 2¼ cups flour. Beat until smooth. Measure off 1 cup of batter; to this add prepared raisins (see below) and pecans. To rest of batter beat in 1½ cups flour. Cover both mixtures; let rise in warm draft-free place until doubled, about 1 hour. Turn larger portion of dough onto well floured board; roll to 10x16" oblong. Spread with fruit-nut batter. Roll dough to form 16-inch roll; seal edge. Place, sealed edge down, in greased 10" tube pan. Cover; let rise in warm draft-free place until doubled, about 1 hour. Bake at 350°F. 35 minutes or until done. Cool; frost with confectioners' sugar frosting. Makes 1 cake.

To prepare fruit: Place raisins in pan with 2 cups cold water. Cook until water boils rapidly for 1 minute. Drain, chop. (Dates may be substituted for raisins. Pit dates before chopping.)

Fleischmann's Yeast

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Planting Lists—Xmas Tree Growers' Guide

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If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you FREE, and without obligation, the complete, modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape, without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. TRY THIS, and send your Post Card today to Capt. W. A. Collings, Inc., 5 Bond St. Adams, N. Y. Dept. 726B

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We are proud of our unsolicited testimonials. Not sold in Drug Stores.

J. S., San Bernardino, Calif.: "I was troubled with a bad leg sore for many years, and at times was unable to walk. After trying many prescriptions and medicines a friend recommended TARLINE which healed the leg in a very short time, and I have never been bothered since."

W. J. P., Indianapolis: "I have used TARLINE and found that it is everything you claim it to be. It has cured my piles and I am so thankful to you for putting out such a remedy."

"OUT OF MANY, ONE PEOPLE"

by Rosley McFarlane*

As soon as we think or speak of an American, the picture of a white form comes to mind. Reference to a Jamaican may conjure up the image of a black person. Yet here in Ithaca, New York, there are Jamaicans who are very fair, some who are black, and then there is a range of complexion shades between these two extremes. Also, some of the Jamaicans here are of Chinese descent. The motto of our island, "Out of many one people," springs from this fact that diverse races make up the Jamaican population.

Jamaica, a Caribbean island, is approximately 1300 air miles from Kennedy airport. In just three and a half hours aboard a jet plane bound for the island, you will be landing on the Montego Bay runway in our second largest city. We are only 90 miles from Cuba, and often it is thought we are too close for comfort!

You would think of our island as small when compared with your own vast country. However in the Caribbean, Jamaica, with an area of 4,411 square miles, is considered one of the larger islands. We have sun and summer all year round, but as our land mass is narrow (49 miles at its widest part), the moderating influence of the sea is experienced over its entire surface in the form of relatively low temperatures for its latitude.

Races Mingle

The smiling faces of Negroes, Chinese, Indians, Syrians, English, and mixtures of these races reflect the sunshine of the land, as people live comfortably together. They mingle freely in the schools, at the airports, in the churches, theatres, and everywhere — not as separate and distinct groups, but as Jamaicans.

This society has grown out of an interesting past. When Columbus discovered this "Caribbean Pearl" in the fifteenth century, he found there peaceful Arawak Indians. The Spaniards then settled Jamaica and subjected these Indians to hard labor and ill treatment to which they were unaccustomed. As a result many of them died. The Spaniards turned to Africa for a further supply of

laborers to replace the Arawak Indians. Negroes, many of them chiefs, princes and kings in their own land, were captured or bought and taken to the island to serve these overlords.

The Spaniards remained in Jamaica for 160 years. For the most part, they were interested in finding gold and turned to a haphazard production of tobacco and sugar cane only when their search for gold seemed fruitless. They left behind very little evidence of their stay on the island. Just the names of a few places, such as Spanish Town and Ocho Rios, and the relics of a few buildings remind us that they once occupied the island.

The English captured Jamaica in 1695, and it remained a British colony until 1962. They found it necessary to bring in English law breakers to swell the labor force on the sugar plantations. Later, with the dawn of emancipation when some slaves refused to work, they hired East Indians and Chinese as laborers. Today of the 1.6 million people on the island, 1 percent are English, 95 percent are Negroes, and the other races including Chinese, Indians and Syrians make up 4 percent.

The races live side by side in the several communities. A family of Indians may have as next door neighbors a Chinese family and a Negro family. The neighbors talk across fences and visit each other. There are Chinese and Indian clubs, but in spite of this, it's difficult to find a social event in which the races are not mixed.

You will find, however, that today you can identify certain of the races with particular occupations. The Chinese, for example, are grocers, and most of the food shops and supermarkets are owned by them. Syrians and Jews are engaged chiefly in the textile and hardware business. The Indians are mostly laborers, but a few of them own cloth and jewelry shops.

The Negroes are found in all of these occupations, and they form the bulk of those in civil service and the professions. This has not always been so. For many years Negroes, Chinese and Indians were relegated to the most menial tasks and positions. Although slavery was abolished in 1838, it was not until 1938 that the voice of the Negro became forcefully effective in Jamaica. Today, Negroes hold the chief positions in government.

With this mixture of races, you may be wondering what language we speak. English is our national language. Other languages, chiefly Latin, Spanish and French, are taught in the schools as they are here. We are predominately British in customs and outlook. However, the impact of tourism and prox-

(Continued on page 60)



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 Heavy twill pants (30-42) 1.75
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New Early Tomato

An extremely early tomato, often ripening big red tomatoes by July 4th, has been developed at the Jung Farms in Wisconsin. You can obtain a trial packet of this tomato by sending 10¢ to the Jung Seed Co., Box 80, Randolph, Wis. They will not only send you this tomato seed but also a packet of the glorious Giant Hybrid Zinnias and a copy of their 58th catalog, America's most colorful 1965 seed catalog. (Adv.)

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4822. Cool little sundress to sew in gay cotton. Printed Pattern in Child's Sizes 2, 4, 6, 8. Size 6, 2-3/4 yards 35-inch. 35 cents.

4977. Smooth-fitting shift for the larger figure. Printed Pattern in Women's Sizes 34-48. Size 36, 3-1/2 yards 35-inch. 35 cents.

4814. Smart duo. Printed Pattern Half Sizes 14-1/2-24-1/2. Size 16-1/2 dress, 3-7/8 yds. 35-inch; jacket, 1-5/8 yds. 35 cents.



4822
2-8

4977
34-48

4514. Smart button-front dress. Printed Pattern in Junior Sizes 9, 11, 13, 15, 17. Size 13 takes 3-7/8 yards 35-inch fabric. 35 cents.

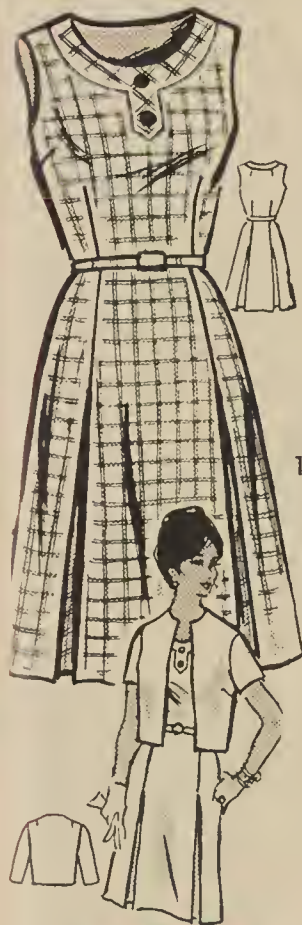
9329. Sailor skimmer with braid and bow. Printed Pattern in Girl's Sizes 6, 8, 10, 12, 14. Size 10 takes 2-3/8 yards 35-inch. 35 cents.

9022. Back-wrap dress has cool neckline. Printed Pattern in Half Sizes 14-1/2-24-1/2. Size 16-1/2, 4-1/2 yards 35-inch. 35 cents.



9329
6-14

4514
9-17



4814
14 1/2-24 1/2



9022 14 1/2-24 1/2



9152
12 1/2-22 1/2



7204



4772
10-18



4801
10-18



9211
14 1/2-24 1/2

828

828. Glamorous mohair cape to top spring fashions; brush for furry look. Knitting directions for cape, all sizes. 25 cents.

9211. A shirtdress with walking pleats. Printed Pattern Half Sizes 14-1/2-24-1/2. Size 16-1/2 takes 4-1/2 yards 35-inch. 35 cents.

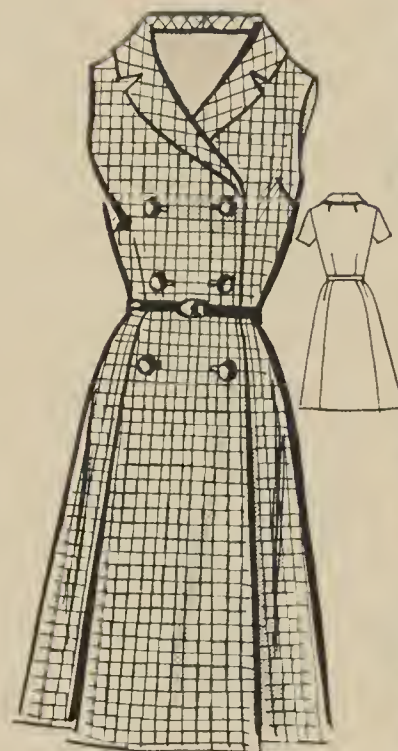
4801. V-neck sundress, flaring skirt. Printed Pattern in Misses' Sizes 10-18. Size 16 takes 3-1/4 yards 39-inch fabric. 35 cents.

4772. 3-part wardrobe to see you through spring, summer. Printed Pattern in Misses' Sizes 10-18. Yardages in pattern. 35 cents.

7184. Bride's Quilt in applique. The original is in Brooklyn Museum of Art. Directions, charts, patch pieces. 25 cents.



4922
10-18



4982 10-20



7204. Coat or jacket to knit in one piece from collar down, including sleeves. Directions for child's sizes 4-6; 8-10 incl. 25 cents.

9152. A pleated casual. Printed Pattern Half Sizes 12-1/2-22-1/2. Size 16-1/2 takes 4-7/8 yds. 35-inch fabric. 35 cents.

4922. Arrow-slim sheath set off by pin tucks. Sew-easy! Printed Pattern in Misses' Sizes 10-18. Size 16, 3 yds. 35-inch. 35 cents.

7389. Handy potholder mitts with padded mouths that open to grasp hot pots. Transfer, directions for two 5 X 12-inch mitts. 25 cents.

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RELIABLE TIRE DIST., 1113 Chestnut St., Camden, N. J.

HARVEST VACATIONERS

COUNTRY HOSTS who want to attract paying vacationers, campers, fishermen and hunters to their farms, ranches and lodges in 1965 will find pertinent information in a new brochure entitled "How to Harvest Vacationers." Published by Farm Vacations, 36 East 57 Street, New York, N.Y. 10022, the free brochure deals with such practical matters as reasons for getting into "guesting," chances for success, the income potential, what current farm hosts and vacationers think of the whole idea, how to set rates, state regulations, insurance, getting ready for guests, how to entertain them, and first of all... how to find them.

Vacation Guide

On this question of reaching the vacationer market, the brochure tells of services offered by the farm vacation organization through its annual "Farm Vacation Guide," "Many of the hosts we represent have developed their spare rooms into a cash crop amounting to \$1,000 for each double guestroom during a single tourist season, particularly after repeat business sets in," states Patricia Dickerman, editor of the Guide, "and the income can be greater if they're open for guests year 'round."

"There's a definite trend in today's travel market toward off-the-beaten-track vacations, family vacations, friendly, interesting, casual, outdoor vacations. Rural America has the facilities and sincere hospitality to offer just this, and a large vacationer market willing to travel both short and long distances... families, senior citizens, children, and visitors from abroad... is ready to be tapped."

"Aside from many thousands of urban Americans seeking a country holiday, a growing number of foreign travelers are entranced with the idea of visiting a real farm family. They come from all over the world, and this past summer included business men and their families, students, writers, United Nations personnel, diplomatic staffs of foreign embassies and consulates, and even the ambassador of a European

country. What better way for people of other nations to see America at its real grass roots, or for the farm and city people of our own nation to find out how each other lives!"

The Guide's specialty is producing vacationers for specific family farms and ranches which it endorses on the basis of an inspection visit. It also directs vacation dollars to the larger guest farms, lodges and country inns... with \$10,000 or more in bookings resulting from a single listing in many cases. An innovation in the 1965 edition will be a special section for hosts who may not want vacationers in the farmhouse, but do wish to sell fishing or hunting privileges, or rent housekeeping cottages, campsites, and trailer facilities.

Having started in the East in 1949, the "Farm Vacation Guide" now represents each of the 50 states.

Out Of Many

(Continued from page 58)

imity to the United States are leaving marks of influence upon us, and many American customs are seeping into the island.

In 1962 we shook off the shackles of colonialism and became an independent nation. As a developing country, we face problems both economical and social.

Jamaicans boast that nowhere else in the world do people of diverse races live together in such harmony as we do. The situation, though ideal, is not perfect. There have been minor incidents of individual or small group conflict, but these have not been of a proportion to disturb the congeniality or "oneness."

We fervently hope that the pressures of internal politics and world tensions will do nothing to mar this togetherness, but that the unity between our races will continue to grow even stronger. It is in such a bond, with diversity contributing to wholeness, that greatness and strength lie.

The Song of the Lazy Farmer



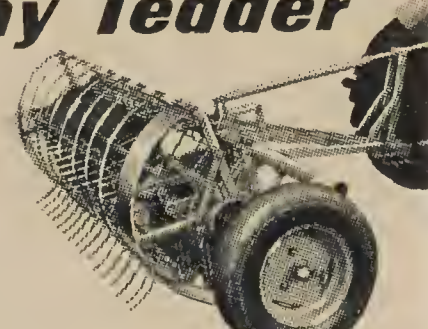
the best time of her life by spoiling babies when they cry, and then she'll have the nerve to try and tell their mothers what to do when infants start to fret and stew. To ev'ryone that she might meet, she'll be so charming and so sweet; "Why, Susan!" she'll say, "you've gotthin!" and Uncle George will start to grin when he is told he beats by far the looks of any movie star.

But that same personality don't show much when she writes to me. Today's note, for example, had just four lines, all of which sound mad. "I'll bet," it started out, "that you have not found time as yet to do one thing that's on the list you've got, and I imagine, like as not, you're spending all your time in town hobnobbing with that bum, Joe Brown!" And then she adds, I'd better plan to come home sooner if I can before you stir up too much mess with all your lazy carelessness." Well, I'll write back that all's okay, and maybe she'll decide to stay.

Mirandy's gone a-visiting, she's checking on her city kin; she wants to meet her new in-laws, and thinks that she can find the cause of why her uncle left his wife; she'll have

NICHOLSON

Hay Tedder



Speeds Hay Making!

Preserves Hay Quality!

Fluffs up hay, opens up thick butt ends to speed curing time, saves protein and other valuable nutrients. Gentle action does not damage leaves or stems. Proper tedding gets hay dry faster, saves a day between cutting and baling, speeds drying after a shower, eliminates moldy bales.

Tedds hay in swath or windrow. Covers up to 5 acres per hour. Patented double-acting spring tines work perfectly on rough or stony ground. PTO and ground driven models.

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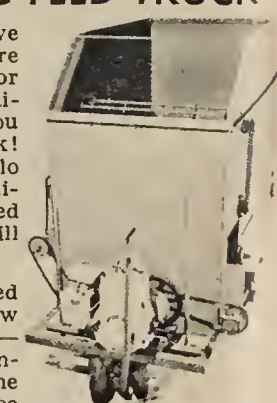
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Reversing two speed transmission. Low speed for feeding — high speed for returning quickly to the silo! Feed can be windrowed or piled in front of each animal. The short turning radius makes this unit very maneuverable and easy to operate.

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One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs — and no horns will grow. No cutting, no bleeding, 4oz. jar — \$1.00 at your dealer's, or mailed postpaid.

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SPECIALISTS IN
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OILS & GREASES

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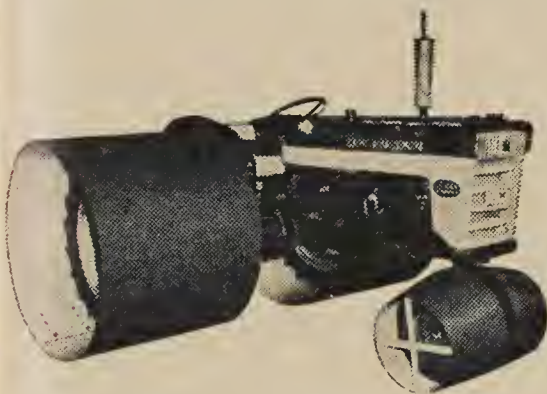
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has 99 uses,
SPLITS GIANT ROCKS, DESTROYS

tree stumps, parasites. Sprays, thaws, disinfects, dries concrete. 800,000 enthused users. Weighs 20 lbs. Burns kerosene, easy to use. Free descriptive literature. Sine, NY2, Quakertown, Pa.

What's



New For Farm and Home



A building system in which cattle are to be confined and fattened for slaughter has been introduced by the Behlen Manufacturing Company of Columbus, Nebraska. The system being used includes a 51' x 100' steel building fully insulated. It has a full-slatted floor made of special alloy steel highly resistant to rust or corrosion, automatic feeding and watering, and thermostatically-controlled temperature and ventilation. The floor is assembled of 12" steel planks with 3/4" slots for about a 50 percent opening. The feeding system is adjustable so that either forage, concentrates, or a blend of both can be fed.

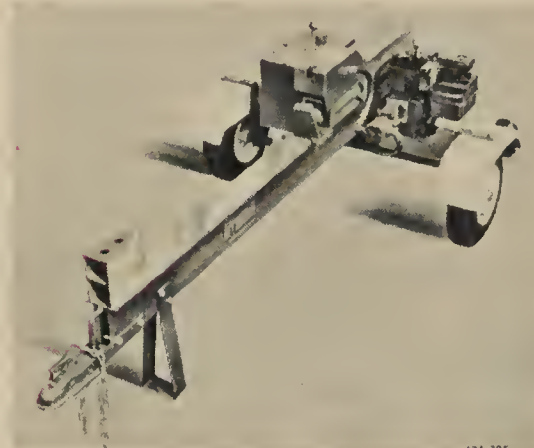


A tractor-drawn device that lays down plastic mulch and handles all phases of setting seedling plants has been developed by Union Carbide Corporation's Plastics Division. Called the Zendel Planter, it plants seedlings along the center line of a strip of Zendel black polyethylene mulch that is simultaneously laid down by the machine.

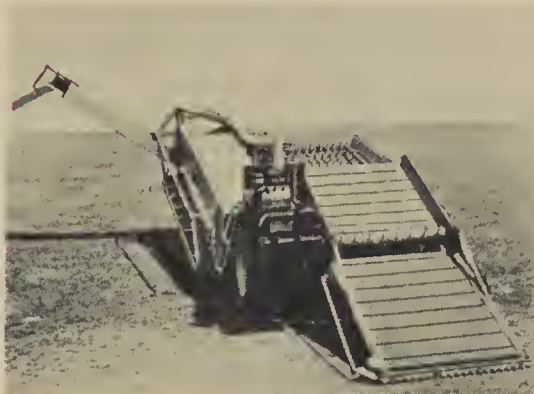


Developed in Sweden by a De Laval affiliate, the Milkograf provides a precise indication of milking problems and helps pinpoint their causes. The configuration of the machine's graph shows exactly what happens during each milking, revealing any irregularity. It shows the cow's sensitivity to stimulation, rate of milk flow, milk let-down time, machine stripping requirement, and reaction to disturbances. A Milkograf costs about \$400, more than most dairymen

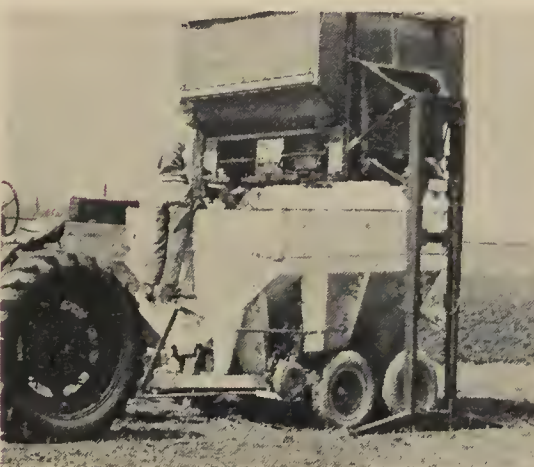
could justify in relation to the unit's frequency of use on a single farm. Some of the larger dairying operations or those that buy a great many cows may be interested, however, as may breed associations, agricultural schools, and Extension dairymen.



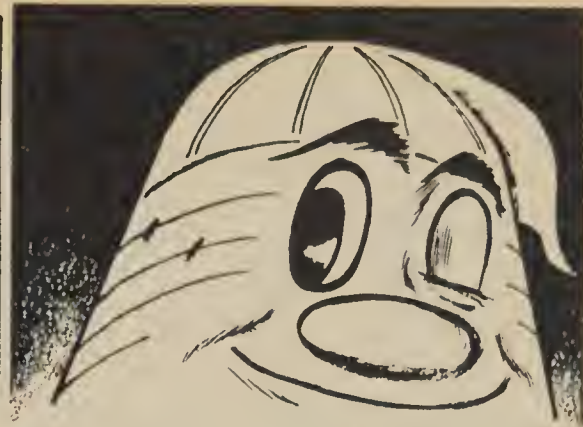
Expanding its line of power log splitters by adding trailerable models and splitters with increased log-length capacity is Mackinaw Products, Division Detroit Tap & Tool Co., 8615 E. 8 Mile Rd., Warren, Michigan. In addition to its standard LS24-series which splits logs up to 25 1/2" long, Mackinaw is now offering extended farm models: the LS36 series for logs up to 37 1/2" long and the LS48 series for up to 52" long logs.



The Hume tomato harvester made its debut this year to eastern growers and others interested in tomatoes. It cuts plants off three inches underground and then moves the entire plant into the machine, where dirt is separated and tomatoes shaken from the vines. It travels at the rate of approximately one-half mile per hour.



The TRANSTAN Company of Orient, Ohio, has introduced a high clearance portable bin which is transported from the warehouse or plant on a flat bed truck. This permits scheduling of deliveries to the fields so a fertilizer supply is always available for the spreader. The 7-foot clearance from ground to underneath bin allows maximum maneuverability and instant loading of all type spreader applicator equipment. Bin capacity is approximately four tons.



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DIRENE



A TIME OF HOPE

February is a short month but a good one. Many famous people were born in February, not the least of whom are Washington and Lincoln.

The older I grow, the more I look forward to spring. When the calendar comes to February I know the days will tick off quickly, and I get a real lift of the spirit.

February is a time of hope on the farm — the hope that *this* year will be the biggest, best year yet. February is planning time — planning to make your hopes come true.

I hope your plans include a vegetable garden and lots of flowers — the old-fashioned varieties — easy to grow. You can't buy vegetables that are as good or as fresh as those right out of your own garden, and you need flowers to help shine up your life.

FARMERS ARE LOSING

A surgeon friend of mine said to me the other day that the recent decision of the United States Supreme Court compelling reapportionment of the people for representation in legislatures and Congress is one of the most vicious things that has happened to rural people in a long time. I couldn't agree more! This decision is just one more thing weakening the farmers' influence and prestige in government.

My friend, William Knox, editor of *Hoard's Dairyman*, reports that Secretary Freeman of the United States Department of Agriculture stated that in the 1930's there were over 300 congressmen with predominately rural interest. Now there are only about 150, and that number is expected to fall below 100 after the reapportionment is completed.

The situation has been brought about for one reason because the cities have been growing larger and the number of farmers smaller. Time was when the farmer had a real voice in state and federal government.

The only hope I see for farmers to get a square deal in government is by their organizations constantly presenting the farmers' problems and point of view to government representatives.

This is just what the farm organizations did do when they had the farm bloc. Instead of pulling and hauling and fighting among themselves, your organization leaders should be spending their time and energy and your money fighting your battles in the local, state, and national government.



See article, *Going! Going! Gone!* on this page.

Because food is so important, a fair deal to the farmers is necessary... it means a fair deal to consumers also.

IT COULD HAPPEN TO YOU

On the evening before Thanksgiving, Richard Rockefeller Eastman, my grandson, was thrown from a car and instantly killed. He was with two other college boys, none of whom had been drinking, and the official report showed that they were not even traveling fast. But the sad fact is that had they been wearing seat belts, the chances are good that we would still have our Richard.

Only 21, with most of his life ahead of him, Dick had just completed four years service in the U. S. Marine Corps, where he had an honorable record of promotion and achievement. He had entered college as a freshman this past September.

What words can I use out of my own grief to get YOU to put seat belts in your car immediately, and insist that everybody who rides in the car wears them?

ARE WOMEN HAPPY?

I have never known a woman who worked harder or longer than my mother did. Yet I have known few women who were happier. Mother's work began early in the morning and often lasted until long after we had gone to bed.

One of my nicest memories is that of Mother singing as she worked, and of our whole family — and sometimes the neighbors too — gathered around the old organ to sing ballads and hymns. Why don't women sing as much as they used to?

In her early married days, Mother helped with the farm work. She set the milk in the big cellar to raise the cream, and made the butter. With Father's help, she raised four boys and did all of her own

housekeeping the hard way without the aid of the modern gadgets.

If women were happier then than they are now, perhaps it was because life was simpler. There was not so much to worry about, for one reason because they didn't know of the awful things that were happening in the world until long after they were over. Children were home more than they are now, and there was more family togetherness.

I'm glad that women now have the modern mechanical appliances which make their lives easier... but it would be good to know also that they are at least as happy as were the women of former generations.

CHOOSE THE GOOD LAND

I have a farmer friend who was born and raised on a rather poor farm in the southeastern part of New York State. As a young man, he hired out to a farmer in the fruit belt in the northwestern part of the State. Eventually he settled there, bought and paid for a farm with excellent land, and became well-to-do.

This friend said to me recently that if he had bought a farm near where he was born and raised, no matter how hard he worked nor how well he managed he never would have made much of a success of it.

There is a lesson for young men from this experience. The chances of success with good land (even though it costs more) are far better than they are with poor land.



ED EASTMAN'S PAGE

GOING! GOING! GONE!

The picture on this page reminds me of the following story which I wrote about farm auctions in my book, *JOURNEY TO DAY BEFORE YESTERDAY*:

Years ago, I went into a room of a farmhouse when an auction was under way in the front yard. I found, sitting alone on a single chair, a friend of mine — an old lady — who was crying. She had always lived on that farm, but now she and her husband had come to the time when they were physically unable to work the farm, so they were going to live with a married daughter in the city. When I put my arm around her bent shoulders, she said to me with a catch in her voice:

"Eddie, I just couldn't stand it to stay out there and listen to the auctioneer make jokes and hear the crowd laugh when things that I have always loved were going into the hands of strangers."

How well I know how that lady felt. Life is a series of constant changes, involving the need to make difficult adjustments which all of us have to make as we grow older. I have a deep sympathy for older people who are forced by change and age to make a complete adjustment and try to make a new life — a life so different from what they have always known. But it can be done!

EASTMAN'S CHESTNUT

There are any number of good stories about the distracted young father waiting at the hospital for the arrival of the first baby. You probably heard the one about such a father who, when the blessed event was announced, rushed to the telephone, called up a friend and shouted:

"It's a baby!"

In case you don't know how to compose a proper announcement of a birth, I suggest the following:

**THE JOHN DOE
Production Company
ANNOUNCES -
The 1965 Doe Baby Boy
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Net Weight 8 lbs. F.O.B. Hospital
The management assures the public
there will be no new models until next
year.**



SERVICE BUREAU

PUBLISHER'S DESK

We have been receiving a number of letters from subscribers who have been wondering what has become of the column entitled "Publisher's Desk" that was so popular in The Rural New Yorker. The only thing that has become of it is that the column is now entitled "A.A. Service Bureau."

The Service Bureau of the present publication tries to help readers adjust differences with commercial concerns, and answers thousands of requests for information every year. It cannot give legal advice nor enter into any legal action, but it does offer suggestions drawn from the fruit of years of experience with all sorts of questions that concern readers.

If you have enjoyed the services and the articles of the Publisher's Desk, we're sure you will equally appreciate the Service Bureau.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Fred Rein, Batavia	\$205.41
(refund of premium)	
Mr. Louis Crosby, Halcott Center	128.25
(payment for hay)	
Mr. Frederick C. Davis, Corning	4.95
(refund on plants)	
Mr. A. J. Dillenbeck, Fultonville	140.00
(payment for hay)	
Mr. Wm. Sweeney, Lyons Falls	8.80
(refund on plants)	
Mrs. John Mold, Monticello	10.56
(refund on vacuum)	
Mrs. Chas. Byers, Fort Plain	2.98
(refund on records)	
Mrs. W. F. Wescott, Central Square	3.95
(refund on plants)	
Mr. Wesley Deming, Ballston Spa	283.00
(payment for hay)	
Mrs. Oris R. House, Hamilton	2.50
(payment on acc't.)	

PENNSYLVANIA

Mrs. Ruth Burleigh, Columbia	
Cross Rds.	36.00
(damage settlement)	

MAINE

Mr. John L. Beauchemin,	
Kennebunkport	19.95
(refund on trap)	

NEW HAMPSHIRE

Mrs. Hazel Putnam, Hillsboro	15.00
(payment for wreath)	

MASSACHUSETTS

Mr. Stanley Janas, Ludlow	14.95
(refund on plants)	

Across the Sea

A reader, who is a Nigerian interested in agriculture and poultry farming, is anxious to make friends with agriculturists in our country. His name is Onuka Kalu and he is 20 years old. In addition to agriculture, he tells us he is interested in writing, music, and basketball. If you would like to write to him, his address is:

Onuka Kalu
7 Adegbola Street
Ikate, Surulere,
Lagos, Nigeria, W.A.

Postage to Nigeria is 11¢ for 1 ounce, first class, or 25¢ for ½ ounce, airmail.

Also, another Nigerian young man is seeking pen pals in America. He is 17 and interested in swimming, football, music, soft ball, reading, and movies. He is:

Saheed Fashina
28 Okepopo Street
Lagos, Nigeria, W.A.

CAN YOU HELP?

Mrs. Norman B. Turner, Route 4, Box 193, Grove City, Penna., would like the modern version of "The Night Before Christmas," which begins: "Twas the night before Christmas and all through the flat Not a creature was stirring, not even a cat."

Mrs. David T. Fox, 45 Third Ave., Canajoharie, N. Y., is anxious to find a copy of "Listen to America."

"Treat the Poor Pilgrim kindly." If you know the old song that begins with these words, please write Mr. Meade L. Zimmer, R.D., Covington, Penna.

Mrs. Lulu King, No. Bennington, Vt., would like to buy copies of any books by Della Lutz, in

American Agriculturist, February, 1965

cluding "The Country Kitchen" and "The Country Schoolteacher."

Mrs. Ted Film, R. F. D., Valley Falls, N. Y., would like a copy of the book, "Wilderness Babies."

"Little one, come to my knee, Hark how the wind is roaring." If you know the rest of this poem, would you send a copy to Mrs. Edward F. Shea, Long Eddy, N. Y.?

Mrs. Albert P. Landgraf, 94 Eugene Ave., Kenmore, N. Y., would like a copy of George Willard Benson's book, "The Cross-Its History and Symbolism."

If you have any old floral prints or pictures (from greeting cards or calendars), Mrs. R. O'Leary, Glendale Rd., Southampton, Mass., would like to hear from you.

ADDRESSES WANTED

The sister of Agnes Leddy, who at one time lived in or near Concord, Mass. Agnes was married to Frank Stender from Germany.

Russell Lee Duncan, whose last known address was Ann Arbor or Detroit, Michigan.

Descendants of Ida L. Bouve, born about 1858 and lived in Boston, Mass. at one time.

Flora Ann Wilkinson, who left New York State for Oklahoma several years ago.

Helen and William Duncan, formerly of Brooklyn, whose last known address was Massachusetts.

Francis St. John or Walter Call Penird, whose last known address was Buffalo, N. Y.

Karl J. Simmons, formerly of Adams, N. Y.

Foot Slipped From Clutch



Albert F. Johnson of Wellsboro, Pa. was drawing a load of hay into the barn. His foot slipped—the tractor jumped forward, crashed through the barn, then dropped to the ground. He was crushed to death beneath the tractor.

Mrs. Johnson received \$1500.00 check from local agent, G. L. Taylor of Erin, N. Y.



OTHER BENEFITS PAID

Paul Hyland, Andover, N.Y.	\$1385.00	George Henderson, Central Square, N.Y.	485.00
Severely fractured & crushed leg		Oil drum fell on leg—broke leg	
G. G. Myers, Conewango Valley, N.Y.	1360.00	Lottie Dwyer, Lisbon, N.Y.	751.92
Kicked by cow—broke vertebrae		Auto Acc.—multiple fractured ribs	
Mary L. Murphy, Moravia, N.Y.	702.00	Ernest Wood, Gansevoort, N.Y.	433.23
Knocked down by calf—broke arm, ribs		Axe slipped while cutting trees—cut leg	
Louis Raynor, DeWittville, N.Y.	1185.00	Helen M. Stahl, Ovid, N.Y.	381.87
Hit by hay elevator—inj. ribs, body		Hand caught in washing machine wringer	
Raymond C. Cole, Pine City, N.Y.	291.93	Donald Chatfield, Bath, N.Y.	1254.68
Getting off tractor, fell—inj. leg & back		Overalls caught in self-unloading wagon—severe leg injury	
Arnold Carson, Oxford, N.Y.	161.40	Rose Korolesski, Mattituck, N.Y.	202.84
Fell & hit hay chute—broke nose		Injured ankle on clutch of tractor	
Robert Sorrell, Morrisville, N.Y.	765.88	John C. Anderson, Jamesport, L.I., N.Y.	441.41
Fell carrying crate—broke knee		Slipped & fell—fractured ankle	
Maxwell Cross, Marathon, N.Y.	1335.00	Harriette Lant, Berkshire, N.Y.	460.90
Auto Acc.—concussion, broke ribs, cuts		Slipped on steps—fractured shoulder	
G. Christensen, Davenport Center, N.Y.	340.71	Alfred K. Dates, Ludlowville, N.Y.	669.37
Crushed by cows—fractured ankle		Dropped crowbar on foot—broke bones	
Francis D. Dow, Moira, N.Y.	255.00	Norman Hitchcock, Hudson Falls, N.Y.	669.11
Turned ankle & fell—fractured leg		Fell from ladder—severe injury to arm	
Gordon C. LaGrange, Johnstown, N.Y.	639.69	Glenn H. Lake, Lyons, N.Y.	624.30
Fell from hay mow—fractured back, wrist		Auto Acc.—cut scalp, multiple bruises	
Carl Carski, Richfield Springs, N.Y.	627.20	Mary Simmons, Penn Yan, N.Y.	365.12
Auto Acc.—broke ribs, injured leg		Slipped on ice—fractured wrist	
Clarence Briot, Croghan, N.Y.	825.00	Mary L. Merritt, Union Dale, Pa.	114.28
Caught in chopper—cut arm muscles		Fell off hay wagon—broke ribs	
Irving Scott, Hamilton, N.Y.	710.00	Ethel G. Beecher, East Brunswick, N.J.	1178.56
Thrown from tractor—inj. neck & back		Auto Acc.—fractured back, head & leg	
Ronald Mead, Amsterdam, N.Y.	982.03	Paul A. Massey, Greensboro Bend, Vt.	155.71
Pierced eye with wire—severe injury		Fell from scaffold—inj. arm & chest	
Franklin J. Downs, Holcomb, N.Y.	1415.00	Cecil V. White, Middletown Springs, Vt.	115.00
Truck Acc.—broke leg, severe cuts		Jumped out of way of tractor—inj. knee	
P. Morrison Baird, Chester, N.Y.	295.38	Glendon McFadden, Springfield, Vt.	223.07
Kicked by cow—severe bruises		Kicked by cow—fractured arm	
Laverne A. Eick, Medina, N.Y.	666.26	Wayne L. Fisher, Greenfield, Mass.	680.50
Injured fingers in field chopper		Hit knee on wooden roll—severe injury	

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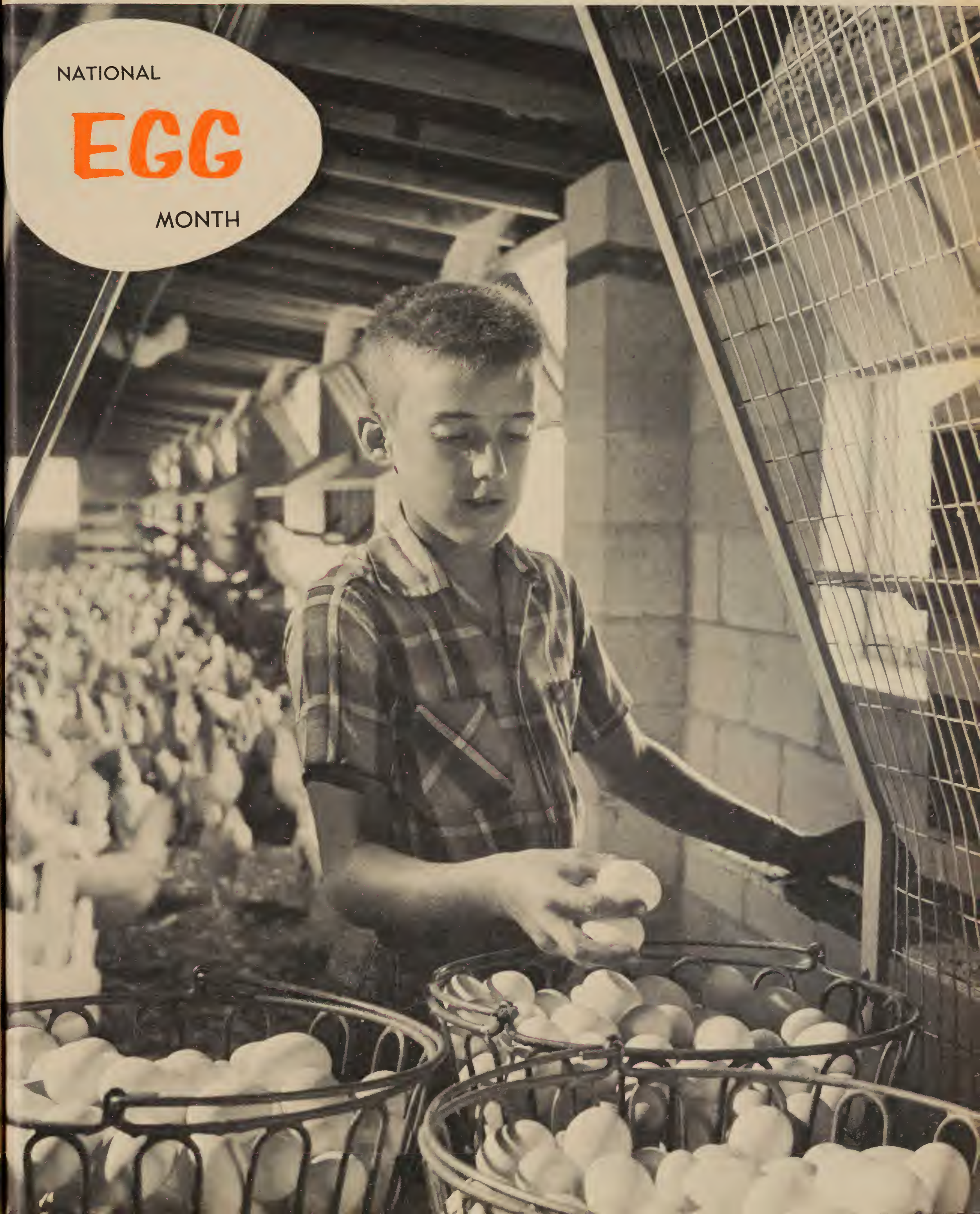
American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER
MARCH 1965

NATIONAL

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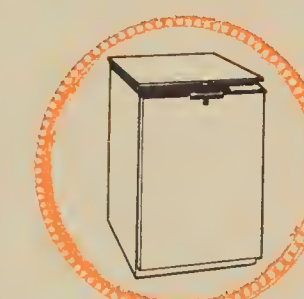
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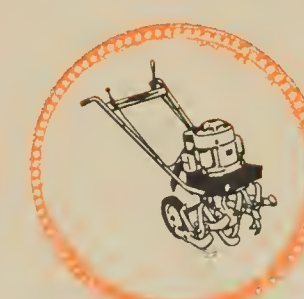
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American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 162 No. 3

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New Medifuran* already has proved its effectiveness in research tests and on dairy farms like your own.

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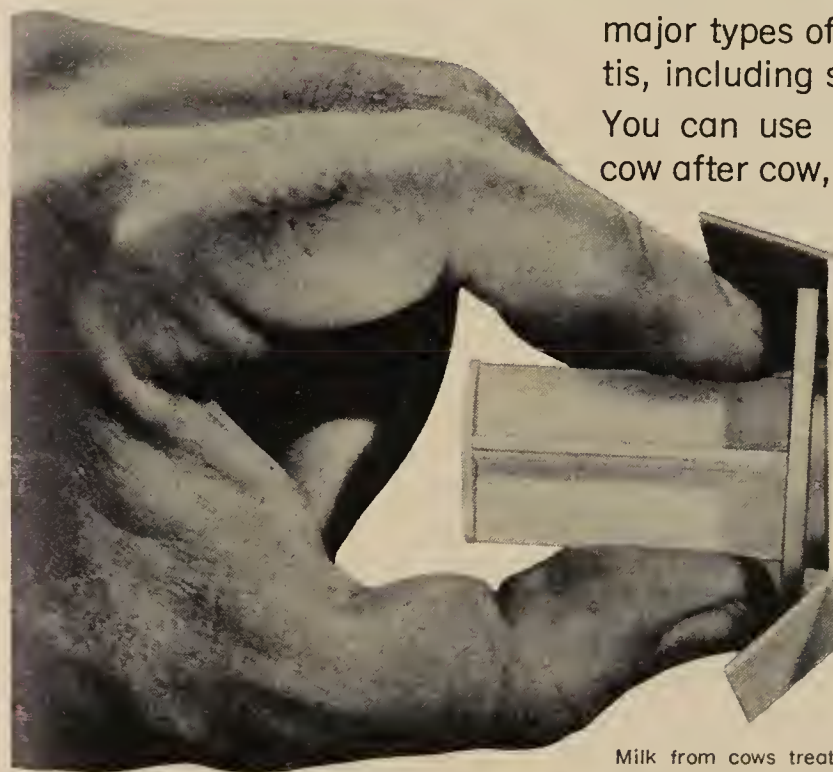
You can use new Medifuran time after time, cow after cow, and continue to get good results.

Important:

New Medifuran lets you start selling milk one to two days sooner. You only discard milk for 48 hours (4 milkings) after treatment. So the extra milk you sell more than pays for the slight extra cost of Medifuran . . . in fact, usually pays for the entire treatment!

Try new Medifuran. It probably comes closest to being the mastitis treatment you've always wanted.

M-5-2



Medifuran®

FOR MASTITIS

*Contains Valsyn, brand of Furaladone of the Norwich Pharmacal Co.

Milk from cows treated with Medifuran for mastitis should not be used for food during treatment and for at least 48 hours (4 milkings) after the last treatment.

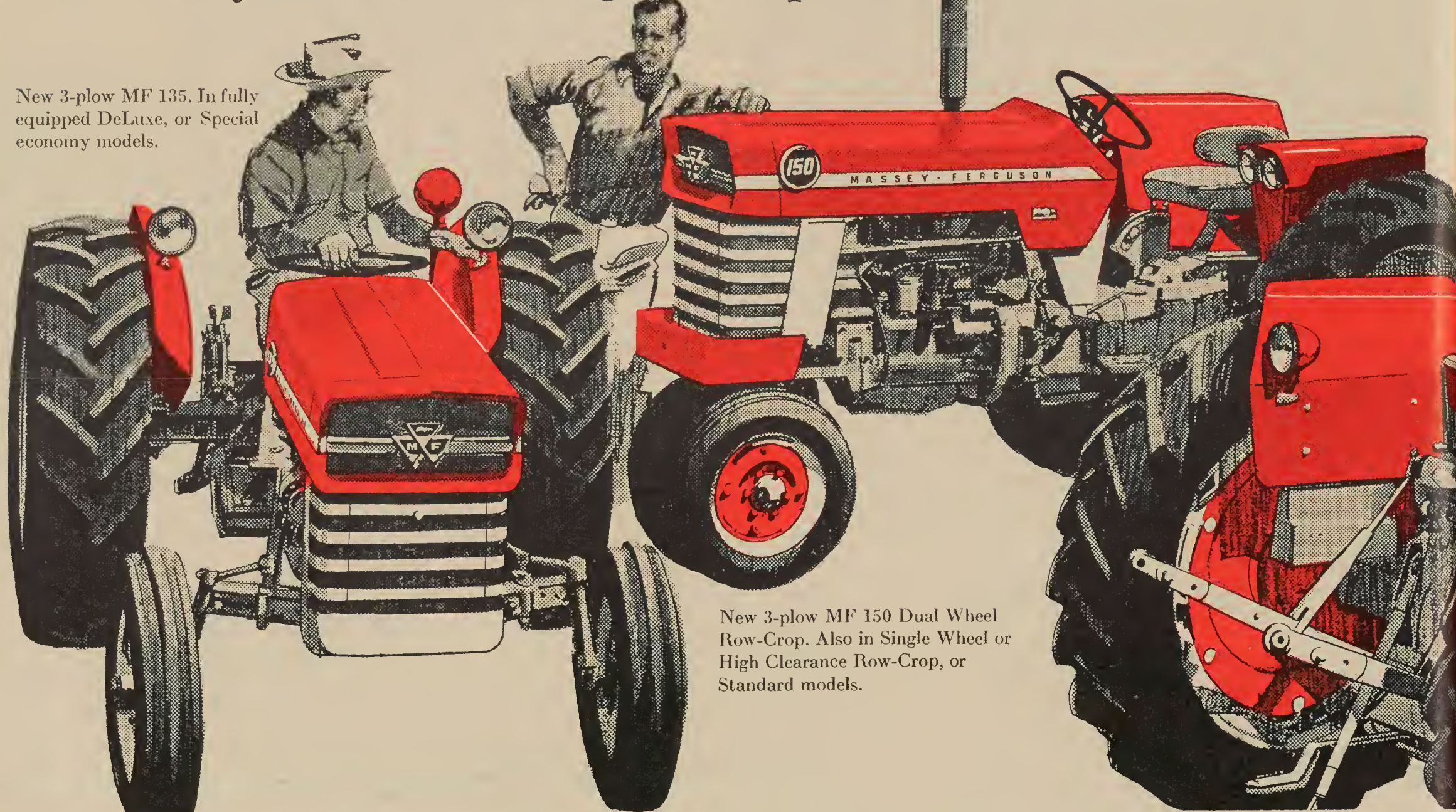


HESS & CLARK

ASHLAND, OHIO

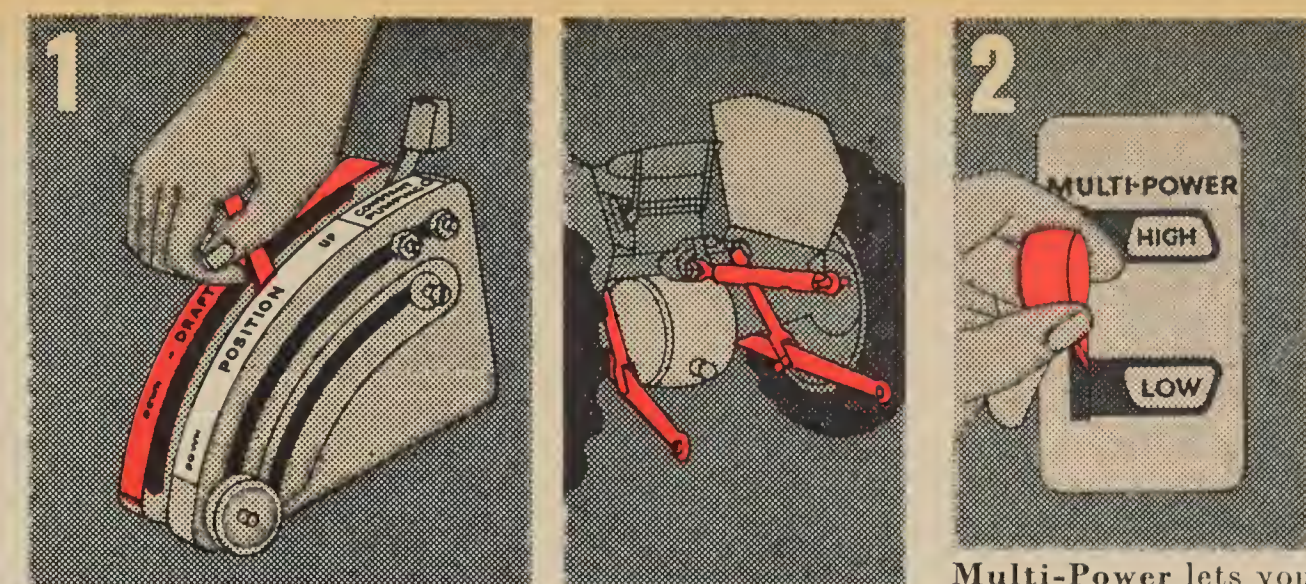
MEET THE ALL-NEW MF 135, MF 150 AND MF 165! First 3- and 4-plov tractors with new, increased-capacity Advanced Ferguson System (Feature 1, right)...new operating ease and comfort (2 to 4)...fuel saving direct injection diesel or gasoline power.

New 3-plov MF 135. In fully equipped DeLuxe, or Special economy models.

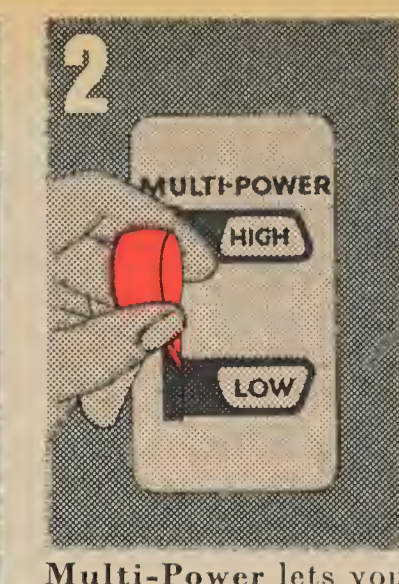


New 3-plov MF 150 Dual Wheel Row-Crop. Also in Single Wheel or High Clearance Row-Crop, or Standard models.

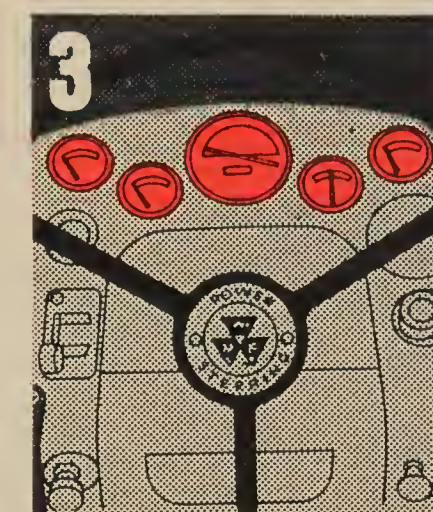
New 4-plov MF 165 High Clearance Row-Crop model. Also in Standard.



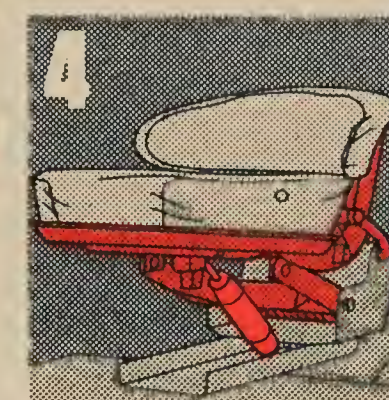
Advanced Ferguson System adds new work power to mounted and semi-mounted implements. Now with stepped-up hydraulics for more "muscle" and lift—more precise implement control—fast, automatic draft response to changing soil conditions.



Multi-Power lets you shift on-the-go at the flip of a switch. Flip it down for more power, up for more speed. Gives 12 forward gear speeds.



Permanent Dash Lighting is electro-luminescent, sealed watertight. No bulbs to replace ever.



Float-O-Matic Seat on the MF 150 and MF 165 has spring suspension and shock absorbers for a smooth comfort ride. Adjusts to your height and weight, also fore and aft.



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PERSONAL FARM EXPERIENCE

POULTRY LIGHTING

Here are two letters we have received from poultrymen concerning their lighting programs. The first one is from the Pine Lane Poultry Farm at Hillsdale, New York, and reads as follows:

"When raising pullets we try not to expose them to increasing day lengths during the latter part of their development period. We raise our replacements in a windowless house, so it is no great task to have the pullets exposed to a constant six to eight hours of light up to 20 weeks.

For laying hens we try not to decrease the day length. We have 14—16 hours of light at all times."

The other was from Philip R. Seidel, who operates the Ghent Poultry Ranch at Ghent, New York. He comments this way:

"We have been in the poultry business for 29 years and have used various lighting programs. Presently we have converted our plant to a fully mechanized cage operation, with environmental control.

"The lighting program we have been using in our windowless cage laying house has been the following: Pullets housed at 21 weeks of age are given 13 hours of light. At 32 weeks of age (or at peak production) we increase the

amount of light by 15 minutes each week to a maximum of 20 hours of light. We use 40 watt frosted bulbs (not long-life bulbs) on approximately 10-foot to 12-foot spacings, directly over the center of the aisle between the cages.

"We are presently constructing a zero-light, controlled environment house to rear our own pullets once again. We light the pullets in the following manner: 24 hours of light the first week and 8 hours thereafter until housing in the cages."

BUYS HEIFERS

We milk between 40 and 44 cows and carry them on a farm of 160 acres. In 1948 we remodeled the barn, but don't really have barn room to raise heifers... so we sell our heifer calves to other dairymen and then buy heifers when they are ready to freshen, or just after calving.

We want them to weigh between 1,000 and 1,100 pounds when they come into our barn. Many of them come from "regular" suppliers... reliable dairymen whose word can be trusted concerning disease; so far we haven't had any real trouble with importing disease. We believe in paying extra money to get what we want in a

herd replacement. They are not all purebreds; in fact, our present herd includes just under 20 purebreds. On a few occasions we have even bought back some of our own heifers sold to another farmer when they were calves.

It makes sense to us to carry the maximum number of milkers allowed by our acres and our buildings and let someone else raise the heifers. — *Harold Stapley, Avon, New York*

RETAIL MILK BUSINESS

In 1962 I put an addition on the barn, and increased the herd from 28 to 50 cows. Along with the rest of us, I wasn't getting any younger, and I decided to increase the herd to a size that would warrant hiring a herdsman.

The man I hired was Paul Maynard. Paul graduated from Franklin Academy, Malone, and back in 1957 was chosen as an Empire Farmer by the Future Farmers of America. He also took some courses at Cornell.

Paul is responsible for feeding, milking, breeding, and keeping records on our purebred Ayrshires. The cows are fed mixed alfalfa hay, which we cut in June and dry on a forced air drier. They get corn silage twice a day after milking, and also a 16 percent grain ration at a ratio of 1 pound of grain to 3 pounds of milk. High-producing cows that get as much as 24 pounds of

grain, are fed grain three times a day.

We are members of the DHIC and NYABC, and participate in the mastitis control program. Our veterinarian checks the herd every month for sterility problems.

The home farm is 85 acres, and an additional 150 acres are rented. In addition to our 50 milkers we have about 35 young stock.

We run a retail milk business, delivering all our own milk and in addition buying about an equal amount. We have a staff of six men to run the business — *Thomas Robinson, Champlain, N.Y.*

COMPETITION KEEN

In 1948 I started in the poultry business in a small way with 500 hens while I still held a job. Now we have 20,000 layers, with 17,000 of them in community cages, 25 birds to a cage.

In a way, keeping hens in cages has hurt the man who keeps hens for eggs. The problem of managing layers on a floor and the often unpleasant surroundings discouraged all but the best managers, and made it difficult to hire good help. To put it another way, keeping hens in cages makes it easier for some poultrymen to stay in business, thus making competition keener.

I have two advantages. First, I raise around 30 acres of corn, which cuts my bill for purchased feed. Second, most of the eggs

(from two-thirds to three-quarters) are sold at retail by three men who have regular routes serving homes and some retail stores.

Our size of business is bigger than the figures indicate, because we buy baby chicks and raise all our replacements.

Two things I keep constantly in mind is to maintain a good rate of lay, and to produce quality eggs that will please our customers. — *Jared Thomas, Bacon Hill, N.Y.*

COMP COMPETITION

Your paragraph on "Competition in Comp" is of course very, very true. But you failed to include a couple of other things that would have added to this. This rate on workmen's compensation has silenced a few sawmills, including our own in this area, and driven the workers and some of the operators off into the woods to operate scavenger outfits that are getting away with what Jesse James used a gun to do. This is more of the unfair competition in comp!

Also, I would think you may have come upon the fact that the truck insurance rate is double for the operators of trucks in lumbering, particularly those that handle the saw products, such as logs, bolts, pulpwood, or any round wood products. This is known as the "assigned risk" rate, and under their regulations this is where you have to be rated if your

gross weight exceeds 24,000 pounds.

Operating a truck under this weight limit will let you draw only 2 cords of round wood on a two-ton truck, which does not make a break-even deal. To handle a paying load of 5 cords or two thousand board feet of logs on a suitable truck costs for registration \$200, insurance \$450, providing this is not a regular routine operation for this truck. In other words, if you are in a business of daily handling of these products you have a higher rate than I have described!

This is what is happening to the producers of wood products in New York State. The small operator is going to be only a picture in some old-timer's picture album — and I will bet you he will show some patched overalls in those pictures! — *John W. Senter, Stephentown Center, N.Y.*

ROUGHAGE

We raise no grain except oats in the rotation... but we grow about 20 tons of corn silage per acre on 10 acres, and finish baling mixed grass and alfalfa by July 4... all of which helps to cut our grain bill. We have one field of Narragansett alfalfa that has been down for 10 years.

We seed meadows with oats; haven't tried seeding alone, though the idea interests me.

This is a small dairy of 25 to 30 milkers, with only some part-

time help. A few years ago we did some roughage testing in cooperation with the State College. We learned a lot, but after all, the cow is a good judge of quality, and a dairyman can learn a lot by watching her. — *Franz Fearnley, Montrose, Pa.*

Editor's Note: For some years Mr. Fearnley's herd has been among the top ten producers in Susquehanna County, Pennsylvania, and one year was in second place.

POTATO CONTROLS

I can't see why this question of acreage allotments for potatoes keeps coming up in Washington. I feel that if growers knew that quotas would not be imposed, they would cut acreage voluntarily. The continued threat of quotas keeps acreage up, because growers want

a big base to which to apply the quotas if they are imposed.

I never took government money for not growing potatoes; I don't believe in the idea. Farmers would be better off now if all price supports had been stopped years ago.

Like everything else, potato growing has changed. With modern equipment one man can care for a third more acres than he could ten years ago. Costs are high. We figure we have \$350 to \$375 invested in every acre we grow. High yields are necessary if we are to show a profit. We use good seed, control weeds, use 1,000 lbs. of 12-12-12 fertilizer per acre, and use equipment to save labor. For example, we store potatoes in pallets instead of crates, and use a fork lift to move them. Potatoes are never touched by human hands until the housewife peels them. — *Karl Hoffman, Collins, New York*



The Hoffman potato field. Left to right: Frederick, Karl and Walter.

BHL



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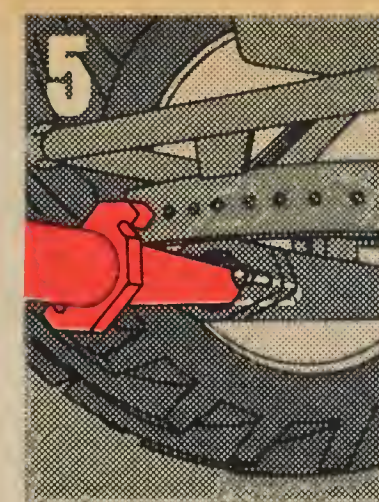
NOW MEET THE NEW 4-5 PLOW MF 175/180!

First ever with Pressure Control, a new feature added to the Advanced Ferguson System for instant weight transfer traction with big Pull-Type Implements (Feature 5, right) ...world's most efficient Control Cockpit (6 to 8) on the MF 180 Row-Crop.

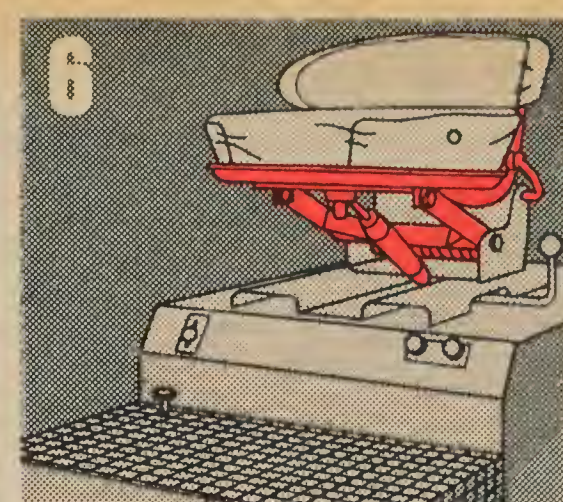


New 4-5 plow MF 175. Standard Clearance. Equipped with Pressure Control. Direct injection diesel or gasoline.

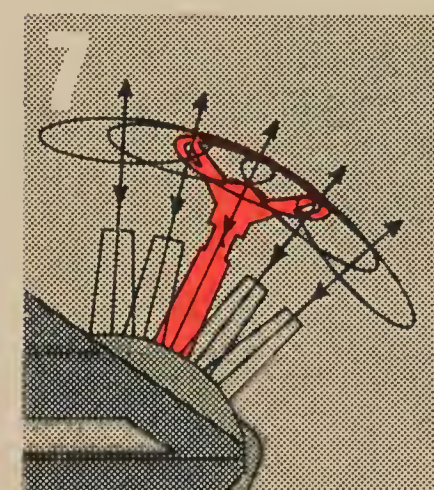
New 4-5 plow MF 180 Dual Wheel Row-Crop. Also in Single Wheel, and High Clearance Row-Crop models. Equipped with Pressure Control. Direct injection diesel or gasoline.



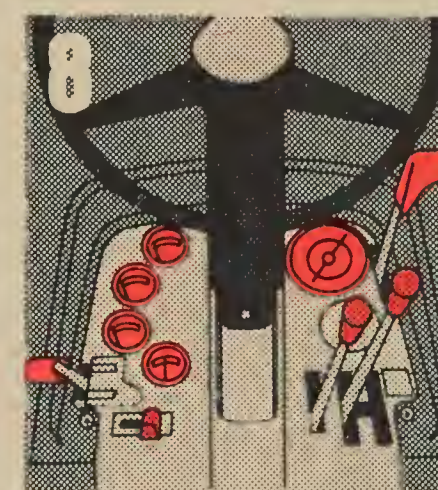
Now, with new Pressure Control and this special coupler, you get instant traction with big Pull-Type Implements. How? If wheel slippage starts, you simply increase the hydraulic system pressure, from the seat and on-the-go. Pressure Control "borrows" the exact weight called for—up to a ton—from the implement and the tractor's front end for traction.



Roomy platform on the MF 180 is high, flat and unobstructed—nothing in your way, nothing to straddle. Spring-suspended, shock-absorbing Float-O-Matic seat for luxurious comfort.



Hydrostatic Power Steering is effortless. Steering column tilts and locks in 5 positions and extends in height for your most comfortable driving position.



Control Center on the MF 180 has everything handy on the dash—Multi-Power, gear shift, throttle, all gauges.



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COUNTRY LIVING

Although raised in the city myself, I have for many years watched my two daughters and their children enjoy life on our farm. One day I placed on the kitchen table a covered box and asked each daughter and grandchild to list their reasons for being glad they were raised in the country, and drop the lists into the box. There was a similarity in their reactions, although they had not consulted each other.

We have horses, donkeys, dogs, cats, sheep and rabbits. First on each list was the comfort and companionship of these animal friends; caring for them was a pleasure and a worthwhile responsibility. With them, a person learns to love and be loved. I could tell when daughter had teenage problems—she'd come in longfaced, put on her jodphurs and gallop down the road. She'd return, calm in spirit, after telling the cares that fretted her to old Prince. They understood each other.

The love of nature was strong

on each list—the freshness of spring—the first robin—the brilliance of autumn—mounds of white satin snow—the friendliness of trees—watching the stars prick through the sky—quiet walks in the fields—a closeness to God.

They thought the work in the country was more interesting than in town. What fun to hurry home from school to see if the sap buckets were full—to cut your very own Christmas tree—to clear drifted driveways with a Jeep and a snow plow—to have your own stand out in front with corn, tomatoes, string beans and pumpkins arranged with Pennsylvania Dutch neatness! The sign that read "Free Donkey Rides for Children."

And the fun in the country—building a tree house where you and Bing dog were monarchs of all you surveyed. Skating on the farm pond—sailing little boats in the creek—hitching old Pep to the donkey cart and taking a town kid on a ride like he'd never had before—the built-in ski slope back of the barn, where you might get hurt a little but you didn't mind—the

the gathering of wild flowers.

So I'm happy that although I was brought up on the sidewalks of Elmira, my daughters and grandchildren have had the joys and benefits of being raised in the country. Their days of being little are about over, but they've had a fine preparation for their grown-up life.—Helen T. Conde, Trumansburg, New York.

SCHOOL PRAYER

In 1802, President Jefferson wrote a letter applying to the First Amendment the metaphor of "a wall of separation between church and state." The Supreme Court has approved of the idea of a wall, for it has said let it be "high and impregnable." But it has failed to heed the location of this wall... that it be built between the church and the state, not between religion and the state.

Had the Founding Fathers wanted the wall to separate religion and the state, Jefferson would have seen the threat of the First Amendment to the government recognition of God he had written in the Declaration of Independence.

It has remained for the Supreme Court to so stretch that wall by its interpretation of the First Amendment... that it separates the state from the recognition of Almighty God and thus bans God from the public schools.

The same reasoning stands ready to likewise ban God from every process of government.

By its 1962-1963 school-prayer-and-Bible-reading decisions, the

Supreme Court has made in logic the relationship between God and the government the same as that which prevails in Russia.—(Name withheld by request).

NO DARKENING

It is unnecessary to send the farmer's wife to the drugstore to keep her cooked potatoes from turning black. Just add a little milk to the potato water and boil the potatoes as usual. They will not be darkened when cooking is finished.—Mrs. Robert Beecher, Livonia, New York

BE A PART-TIME FARMER

Many years ago it was my good fortune to locate in a small rural village as teacher of agriculture. Fresh out of Cornell College of Agriculture, I carried the idea that to be successful and happy as a farmer, one needed to produce better. It was about as simple as that. What I failed to see was that much more than profits is needed.

I could not at that time see that while farming is indeed a business, the family farm of that day nearly fifty years ago was much more than a business. It was then and still is a very important way of life to countless thousands. The farmers' way of life was by circumstances forced upon a certain percentage of the farmers, but more often it was deliberately and intelligently chosen. This group
American Agriculturist, March, 1965

was for the most part reasonably content to obtain a fair living from the soil, self-sufficient and happy in so doing.

Today many full-time farmers each year must find other work off the farm; for them farming as a business must be abandoned. But they need never abandon the way of life they love. They can make the necessary adjustments to a new way of life, retaining most of the experiences and pleasures of the old farm. They can join with other rural and semi-rural people who are not depending upon the farm for their entire living; they can become part-time farmers. The living will come from some non-farming occupation; luxuries can come from part-time work. There is an endless number of ways a person living in the country can earn extra money if needed.

Let's take the case of the retired person. Some time before he retires, he locates a small place in the country. He spends some of his spare time getting it ready for his retirement. The day arrives. What does he do? Does he drop exhausted into the old rocking chair? Not by any means! He sees a whole lot of interesting jobs he had been simply itching to get at. He gets so interested that he probably works up a good sweat almost every day and loves every minute of it. He does not get too tired as he works, but rather lets up when he feels like it, cleans up, puts on comfortable clothes and, relaxed,

American Agriculturist, March, 1965

thinks pleasantly of what he has accomplished.

But that is not all. He has solved his cholesterol problem, improved his appetite, strengthened his body, and added years to his life span. Such a program of interesting activity will mean a longer and better life for almost anybody. And those extra years will be GOOD years.—Roy W. Harmon, Pittsford, New York

HE'S MAD!

I read your column in which you berate the railroad men for so-called "featherbedding." Well, is it any worse to pay a railroad man to do unnecessary work than it is to pay a farmer to produce surplus food?

You say that farmers are more self-reliant than city people. Well I am a city person, and I work damned hard for my wages—and every week a certain amount of it goes to support you self-reliant farmers!—"Burned Up," Mas-sena, New York.

ANOTHER ONE

While not wishing to detract from the novelty of Mr. Hawley's Gayway Farm cow barn, I am not certain that it is correct to say that it is the only barn of its type "anywhere." It consists of rows of free stalls in which the cows are fed, with slatted alleys and a liquid handling system for the manure.

A barn of this type was observed near Leipzig, East Germany, in 1960... and photographs of this have been used by U.S. Steel Corporation as a basis of a sketch that they have used for several years. The East German researchers now have two large experimental free stall barns, one with feeding in the stalls and the second with feeding at a central manger; their plan is to compare these two alternatives. This seems to be one of the major questions in modern dairy barn design.

The Germans used an 8-stall "rotolactor" with the old barns and are building a larger one for the new barns. I explained to them why we prefer the herringbone with one unit per stall as is proposed at Gayway.—W.H.M. Morris, Dept. of Agricultural Economics, Purdue University

BANG!

Here's a method for killing woodchucks that was used successfully by its inventor for a number of years in southern Indiana.

Equipment:

- 10 gallons of water
- 1 gallon of gasoline
- 1 cup of kerosene
- 1 corn cob
- 5 feet of heavy wire
- 1 match

Pour the water down one burrow entrance and then quickly add the gasoline. It will "float" on top of the water-soaked soil and its

fumes will fill the burrow. Step back, light the corn cob (which has already been soaked in kerosene with the wire attached) and poke it into the entrance with the wire.

The resulting explosion is said to hurl the chucks out of the burrow several feet into the air. As they land the somewhat dazed critters can be dispatched with gun or club. It's reported to be an effective method... if somewhat tough on the woodchucks.—Gould P. Colman, N.Y.S. College of Agriculture, Ithaca, N.Y.

SHARING KNOWLEDGE

I think one of the reasons that America has made such progress is that we give freely of our know-how. I have always, when I thought it would not antagonize my neighbor, given him advice that saved him many dollars. Our combined knowledge is greater than that of any one. There's an old saying that "if you do not give, you do not receive."—Ara B. MacInnis, Litchfield, Maine

BLACK POTATOES

I noticed in a past issue that a reader was inquiring why potatoes sometimes turn black after they are cooked. I use about a teaspoon of vinegar in the cooking water to prevent them from turning black.—Mrs. Carl Payne, Londonderry, Vermont

BHL



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Think BIG about CORN!

by Hugh Cosline

ABOUT NINETY PERCENT of the dairy-men in the Northeast grow silage corn, and an increasing number grow corn for grain. It is one of our most important crops, and its many good points are gaining merited recognition.

To get the full potential yield of corn on any given field requires a complete well-rounded program. You can supply adequate or even excessive plant food, but if other essentials are neglected, the yield is sure to be disappointing.

Six Parts

This well-rounded program is made up of at least six parts. They are:

- (1) Grow your corn on the best land on the farm.
- (2) Prepare a good seedbed, but avoid unnecessary tillage.
- (3) Apply adequate lime and plant food, preferably guided by a complete soil test.
- (4) Use enough seed to give an adequate stand of a variety adapted to your area.
- (5) Control weeds.
- (6) Harvest at the right stage, and store to prevent unnecessary losses of nutrients.

MANY QUESTIONS

This sketchy outline immediately raises many questions, with particular reference to corn for silage. Here are a few of the ones most commonly asked:

What yield of silage corn should I aim for?

Put your goal high! If you are satisfied with fifteen tons per acre you are unlikely to harvest more. A few dairymen are growing 30 tons per acre. This goal is not unreasonable. If you actually harvest 20,000 plants per acre, and if each stalk and ears weigh 3 pounds, you will have your 30 tons.

The average yield of corn for grain in the Northeast is a little better than 50 bushels of shelled corn per acre. Yields of 100 bushels are common, and experimentally, under ideal conditions, we hear of yields approaching 200 bushels per acre.

What plant population should I plan?

On good corn ground 20,000 to 24,000 is about right for silage... perhaps 16,000 to 20,000 for grain. Even on the poorer ground, less than 16,000 plants is not recommended.

To get 20,000 plants per acre requires a plant each 8 or 9 inches in rows 36 inches apart. Not every kernel will develop into a plant, so use around 20 percent more seed to allow for this.

For summer green feed, plant population may be as high as 50,000 per acre or higher, but this is not recommended for silage and seed costs are high. Plant breeders have been trying to develop varieties that stand crowding and still develop ears.

Planting at a speed over 4 miles per hour

will give poor spacing. To be sure of the seeding rate, check the actual kernel drop at the proper speed on the driveway.

There is some evidence that corn in rows less than 36 inches wide and with plants a little farther apart in the row will give a slight increase in per acre yield over standard spacing. As one man comments, "The width of corn rows was originally determined by the width of a horse's rear." However, if you change the width of the corn rows, you may need costly adjustments in your equipment.



What variety of corn should I choose?

Probably the most common mistake is to select a hybrid on the basis of the probable green tonnage per acre! Water is important, but there are less costly ways to supply it to the herd than to haul it and store it in a silo! Actually, seepage from the silo will lose valuable nutrients.

Perhaps the first thing to do is to check the average season between frosts in your area. Hybrid corn varieties are roughly divided into early, medium and late varieties. Choose a variety that will mature to at least the early dent stage in the average growing season in your area. If you hope to fill the silos and have a surplus to husk, choose an even earlier variety.

A hybrid has been developed as a non-grain variety, and with a higher sugar content. Tests to date indicate caution about using it to replace standing varieties.

When should corn be planted?

Recent experience shows the importance of early planting. One regional sales manager for a seed firm says, "Late planting is the biggest single drawback in growing better corn in the Northeast."

Corn frosted in the spring of 1964 recovered and yielded better than corn put in at a later date. A good rule is to plant a week before the date of the last killing frost. Two weeks between planting dates on two fields results in one week's difference in maturity in the fall.

What about this plow-plant method?

One way to get corn in early is to use the plow-plant method. When a field is ready the corn goes in without delay for seedbed preparation or because of bad weather.

Under ideal conditions, yields are excellent, and time and expense are saved. Plowing must be done when a mellow furrow slice results.

Weeds develop more slowly because the soil is loose. The corn germinates readily because the soil around it is packed by the press wheel and because the soil temperature is likely to be higher.

After the corn is up, a cultipacker and weeder is used to smooth the soil and kill weeds.

Where the plow-plant method doesn't fit

the needs, many dairymen are reducing the amount of tillage before planting, with excellent results. The field is harrowed once or perhaps twice before planting.

Incidentally, plowing to a depth of 8 inches is usually recommended. Tests show few yield increases from deeper plowing, which takes more power, therefore adds to costs.



What about this plow-plant method?

It would be helpful if a definite blanket recommendation could be given. However, the

problem is exceedingly complicated.

It is relatively easy to analyze the corn plant and figure what plant nutrients a 30-ton crop takes from the soil. But adding those amounts will not guarantee a 30-ton crop. We can say, however, that the tendency is to use more commercial fertilizer, and that adequate plant food is a very important factor in getting a satisfactory yield.

Among the variable factors are: (1) The depth and natural fertility of the soil; (2) the lime content; (3) the previous crop grown — alfalfa, grain, corn; (4) the manure and fertilizer added in previous years; (5) the present soil test.

Many farmers are putting considerable dependence on a complete soil test, and following

the resulting recommendations. It goes without saying that full benefit from commercial fertilizer will not be obtained until lime requirements have been met. Decision on the exact amount to apply can be guided by your county agricultural agent or the dealer from whom you buy.



How much fertilizer will I need to add?

How to apply the fertilizer is equally important. Too much too close to the seed will hurt germination. The right placement in the row is 2 inches away from the seed and 2

(Continued on page 45)

1965 CHEMICAL WEED CONTROL RECOMMENDATIONS

Department of Agronomy

Cornell University

CORN

TIME OF APPLICATION	CHEMICAL	RATE PER ACRE	REMARKS
At Planting	Atrazine (80-W)	2 pounds in 20 to 30 gallons of water	Mount spray nozzles behind planter packer wheel. Spray 12-18 inch band directly over row. Amount recommended will treat 2 to 3 acres depending upon width of band. Band application reduces herbicide cost. Good control of annual grasses and broadleaved weeds which germinate from seed can be expected if adequate rainfall follows treatment. Agitation in spray tank in addition to regular by-pass is necessary. Early cultivation is necessary to control weeds between rows.
Pre-emergence 3 to 5 days after planting	2,4-D low volatile ester	1½ pounds in 10 to 30 gallons of water	Do not use on light soils. Injury often occurs on light soils if rain follows treatment during period of corn germination and emergence. Low volatile esters safer and more effective than amines. Pre-emergence treatments desirable where moisture conditions may prevent early cultivation. May be ineffective if dry weather follows treatment. Cultivation necessary for grass control and the control of perennial broadleaved weeds. Do not use in areas where susceptible crops such as tomatoes and grapes are grown.
1 to 5 days after planting	Atrazine (80-W)	1½ to 2 pounds in 20 to 30 gallons of water	Recommended where annual grasses are a problem. Rainfall during period of weed seed germination is necessary for effective results. Observe fields frequently during period of corn emergence. If weeds do not show injury within 14 days after corn emergence, the corn should be cultivated. Pre-emergence treatments specifically for the control of quackgrass have been highly variable. Cultivation necessary to control perennial broadleaved weeds. Do not plant sugar beets the year following Atrazine.
1 to 5 days after planting	Linuron (50-W)	1¼ pounds in 20 to 30 gallons of water	Do not apply after corn emerges. Plant corn at least 1¼ inches deep if Linuron is to be used. Heavy rains during germination and emergence of corn may cause injury and stand reduction. Good control of annual broadleaved weeds and annual grasses. Do not use on sandy soils. There is no indication of a soil residue problem where Linuron is used. Cultivation necessary to control quackgrass and perennial broadleaved weeds.
Post-emergence Corn 2 to 10 inches tall	2,4-D amine	½ pound in 10 to 30 gallons of water	Corn at this stage is most resistant to injury and broadleaved weeds are most susceptible. Annual grasses are not controlled. For corn taller than 10 inches, use drop nozzles. 2,4-D will cause leaf rolling which may be more noticeable if hot, dry weather follows treatment. Do not cultivate for 14 days following treatment because corn may be brittle. Cultivation is necessary for the control of grasses and perennial broadleaved weeds.
Within 21 days after corn is planted	2,4-D low volatile ester	¾ pound in 10 to 30 gallons of water	Rate recommended is equal in effectiveness to ½ pound of amine. 2,4-D esters not recommended in areas where susceptible crops such as tomatoes and grapes are growing. Other comments under 2,4-D amine above apply.
	Atrazine (80-W)	1 to 2 pounds in 20 to 30 gallons of water	For best results, apply within 21 days after corn planting and before weeds exceed 1½ inches tall. Good control of annual broadleaved weeds and annual grasses if rainfall is sufficient to carry chemical into the root zone of the weeds. If broadleaved weeds do not show injury 14 days after treatment, the corn should be cultivated. Agitation in spray tank in addition to regular by-pass is necessary. If rates in excess of 2 pounds per acre are used, the field should be planted to corn the following year. Do not plant sugar beets on fields treated with any rate of Atrazine the previous year. Cultivation necessary to control quackgrass and perennial broadleaved weeds.

BHL



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THE SURE ONES!

For the fastest-handled hay crops of your life, see IH's lineup of tools

Sure you have your own system for handling your hay. But whatever it may be, look into the IH lineup of tools to speed up any or all phases of it.

For example, suppose you bale. You can turn out up to 17 tons of compactly baled hay an hour with an International Harvester 37 or 47 baler. Or up to 20 tons with the IH 57.

Every knot tied will be a double-diameter knot that will take as much as 60 pounds more strain than the ones other balers tie.

Every bale will be better hay because IH's gentle auger feed doesn't shatter those high-nutrition leaves.

And you'll probably get more bales per acre, thanks to the fact that the full width of IH pickups is usable, and its floating action follows ground contours to miss little or nothing of the windrow.

On the opposite page, you'll find equally advanced hay tools to fit your particular hay-handling system—whether you need a mower, rake, conditioner—a windrower or a forage harvester.

This year, shoot for high-speed haying—and prime hay that brings a premium price, or produces more meat or milk from cattle. See your IH dealer about it. And check into the convenient IH "pay-as-you-grow" plan.

International Harvester Company, Chicago, Illinois 60601.



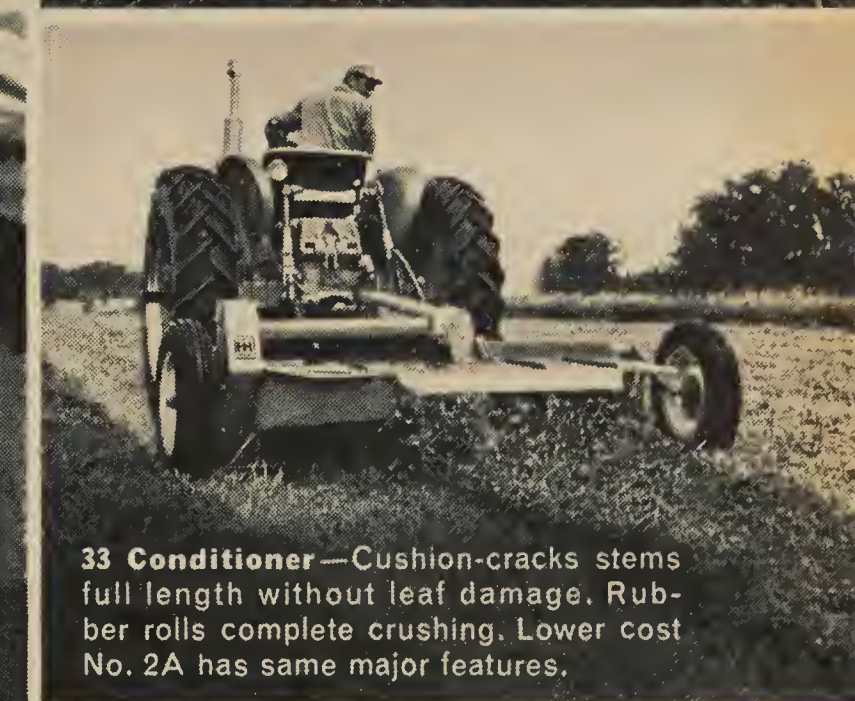
The people who bring you the machines that work



IH 37 BALER—HIGH CAPACITY, LOW COST



120 Mower—7 or 9' cutter bar. Wrist-Action drive with only 3 moving parts, faster knife, cuts clean at up to 7½ mph... lets you cut up to 70 acres a day.



33 Conditioner—Cushion-cracks stems full length without leaf damage. Rubber rolls complete crushing. Lower cost No. 2A has same major features.



14 Rake—7' width. Minimum raking angle rakes gently, saves leaves. Makes fluffy, well-ventilated windrows for fast curing, easy pickup. 9' rake also available.



201 Windrower—10 to 16' floating platform follows ground contours. Auger or draper models. Does 3 jobs on one pass, saves two miles of field travel per acre.



50 Forage Chopper—haylage or green chop fast. Pull-through action force-feeds crops—9-knife cutter makes 9,000 cuts per minute. Corn head available.

BHL



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EDITORIALS

by GORDON CONKLIN



WELCOME ABOARD

Meet Bob Christianson, who began work as advertising manager of *American Agriculturist* and the *Rural New Yorker* in January. He was born in Hempstead, New York, and grew up on a farm in Pike County, Pennsylvania, where he owns property.



BOB CHRISTIANSON

He spent a number of years as farm editor for a newspaper in Minnesota, and also did a considerable amount of radio broadcasting. Later he became editor and advertising manager for two farm publications . . . the *Arkansas Farmer* and the *Mississippi Farmer*.

Bob came to Ithaca from Chicago where he had been an account executive with the Leo Burnett Company. Before joining that advertising agency, he had been advertising manager for American Breeders Service. He served in the Navy during World War II and again during the Korean action . . . in the latter tour of duty on the heavy cruiser *Albany*.

The Christiansons have four children, three boys and a girl. The family plans to remain at their Naperville, Illinois, home until the end of the school year.

COMES THE DAWN

By golly, after all these years I have finally seen the light about public welfare programs! Here I've been preaching the gospel of individual responsibility and the need for incentives to encourage people to be productive. I've railed against letting people get something for nothing if they're capable of working, and have even gone so far as to quote Captain John Smith's old adage, "those who will not work shall not eat."

Late the other night, though, I drove my car into the garage and then got out to look across the fields at a lighted window in the home of a neighbor. Now I know he was diligently laboring far into the night over his farm records so he could be a more effective farmer the next day, and maybe earn a bit more.

I mused on the fact that he had only one car and I had two. He works far longer hours than I do. He saves his money carefully for his children's future education while I can't seem to put aside a dime. My house is twice the size of his, and my recreational activities cost ten times what he allows himself.

Suddenly a cold wind blew down the back of my neck as I thought of what might happen if my income were reduced for some reason. Then it was that the great light shone in my mind . . . why not push for programs that would tax my neighbor to provide for my needs? He can certainly afford it!

"Sure, that's a great idea," I exulted. "I'll use my income to purchase what I want, and then legislatively force my thrifty neighbor to pay for my necessities when I am in dire need! I'll buy the boats and the extra cars and the good times on the town when I am able, then go to public assistance for hospital bills, the needs of my old age, and low rent housing. After all, I have some rights!"

My only regret is that some of my very liberal friends didn't present the real picture many years ago of just what they were really driving at. They always talked so far above my head about the "affluent society," of "felt needs," and of "social reorientation." If they had just leveled with me and talked about having fun with what I have and paying the shot with what someone else has, then I would have wised up a lot sooner.

Now I can get busy and push for Medicare, more liberal welfare benefits, and procedures to protect the "human dignity" of the people who collect hundreds of millions of dollars in public welfare every year just in New York State. After my new vision of the possibilities, I want to be sure the programs will be completely adequate to meet my desires whenever the need arises.

Doesn't that sound like a grate idea?

OH DEER!

From personal experience, I know how much damage can be done on a farm by deer. The bucks enjoy nothing better than raking the velvet off their horns on young apple trees; they join the does and fawns at browsing farmers' crops. Chautauqua County, New York, is an example of an area that has been having more than its share of problems with deer, particularly in the towns of Westfield and Ripley . . . damage to fruit trees, market and canning crops, etc. Estimates of the total damage in that area alone run as high as \$105,000.

Sportsmen naturally are opposed to stringent wildlife control measures; many farmers, of course, are also very much interested in deer hunting and want enough deer around to make hunting enjoyable. However, farmers are all too keenly aware that it's their crops and forest browse that fill the tummies of the deer herd in agricultural areas.

New York State is fortunate, by the way, in having Regional Fish and Wildlife Management Boards composed of farmers, sportsmen, and members of county boards of supervisors. These regional groups meet to discuss a wide range of mutual problems connected with hunting, fishing, and the broad field of wildlife management and conservation policy. This has done much to develop better understanding between land owners and sportsmen, but has by no means resolved all points of differences.

Maine, New Hampshire, and Vermont have experimented with programs whereby the respective states paid farmers for damages caused by deer. Although partially solving the problem, even these programs left something to be desired. However, they did call added attention to the problem so that supplementary approaches were looked for . . . such things as a reduction in herd numbers, the development of repellents, and special arrangements for farmers to shoot (and sometimes keep) deer out of season.

These out-of-season permits are available to farmers in a number of states, but they don't compensate for damages already done. Wouldn't it be fair to use a portion of hunting license receipts to beef up (or should it be venison up) programs to compensate farmers for damages suffered, and to develop research programs for better repellents, rapidly effective herd size control, etc.? Sheep owners in many states already receive indemnity payments for

dog damage taken from receipts for dog licenses.

I suspect any nonfarmer would have a fit if a dairyman were to pasture his cows on the nonfarmer's lawn, or allow cattle to trample ornamental shrubs that were expensive to purchase and required years to grow, but the deer herd is protected by law and allowed to roam the countryside at will and inflict damage on farmers. Simple justice dictates that farmers should get a better shake in this situation.

LAND RETIREMENT

Across the years I have read tons of published material about the "farm problem." Upon only one thing does there seem to be almost unanimous agreement. It is that there are too many resources employed in agriculture in these United States . . . too many in terms of an ideal situation where the market is supplied with only an amount of farm products that would sell for "adequate" prices.

What are these agricultural resources which the economists are so fond of discussing? The basic tools of production on farms consist of land, labor, capital, and management. Low monetary returns to these resources, of course, tend to force them in the direction of more profitable uses, but the process is painful to the people involved.

It seems inevitable that the trend toward fewer farmers will continue for a while, but the rub is in deciding who goes and who stays. The highly emotional part of the "farm problem" concerns the adjustment of those people who must leave farming for other occupations.

I am in favor of a federal land retirement program, with emphasis on whole farms, to grease the wheels of adjustment. Some farmers, particularly older ones, are "locked" to farms of inadequate size or with marginal soils because they have an investment there that they can't get out any other way than by farming it out at very low income levels. Long-term government leases for land retirement would allow them to "get out from under" gracefully, as well as cutting production of surplus farm commodities. It would reduce two production resources . . . labor and land, thus shrinking the total agricultural plant to a size in balance with effective demand.

Several of my neighbors retired from farming by signing up their entire farms in the Soil Bank started in the Eisenhower era. All of them have continued to live on the farms and to remain a part of the community, but the land has remained idle.

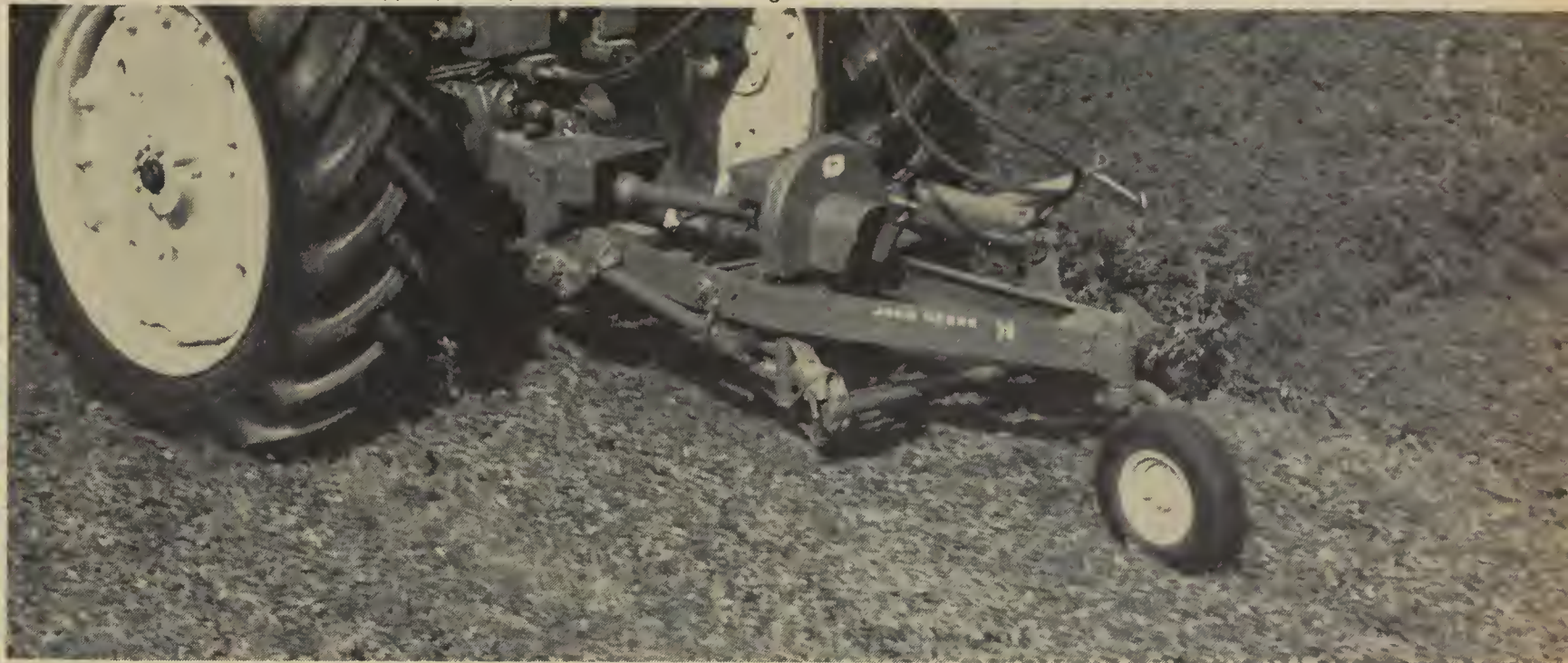
Sure, I'm aware of the arguments against this approach . . . depopulation of some rural areas, hurting business in some towns, adding to urban unemployment and all the rest. But I am convinced the pluses outweigh the minuses. More land and more people are involved in agriculture than can be profitably employed . . . unless we face up squarely to this truth, the problem will never be solved. Hard-boiled analysis of what any problem is must precede its solution . . . whether it's the farm problem or any other.

The program should include stipulations that would prevent non-farmers from abusing it as was done with the Soil Bank. No doctors, lawyers, professors, skilled industrial workers, editors, etc., should be allowed to clean up a pile by taking advantage of an opportunity to rent their land to Uncle Sam at an attractive price. Also, it should be a program extensive enough really to accomplish something — involving around sixty million acres of cropland.



Shown below is the new 39 Three-Point-Hitch Mower.

The new 37 Trail-Type (above) is the fastest-hitching mower in the line.



The new 38 Caster-Wheel Mower has a semi-integral mounting.

3 New John Deere Rear-Hitched Mowers boost cutting speed to 7 miles per hour

Clean, shear cutting at speeds up to 7 miles per hour—that's what you'll get with a new John Deere 30 Series Mower. This higher speed is made possible by a fast knife speed of 950 rpm or 1,900 strokes per minute.

You'll like the V-belt drive on these new mowers primarily because it's so simple. A single, heavy-duty V-belt gives a smooth, positive drive from the power line directly to the pitman flywheel. No slip clutch is required. The V-belt drive also cushions shock loads on the cutter bar, practically eliminating pitman breakage. This drive also makes hay conditioner hookups for these mowers shorter, simpler, and lower cost.

Equally important, you'll find the V-belt drive is easy to maintain. The drive is out in the open and easy to get at. A simple draw-bolt adjustment

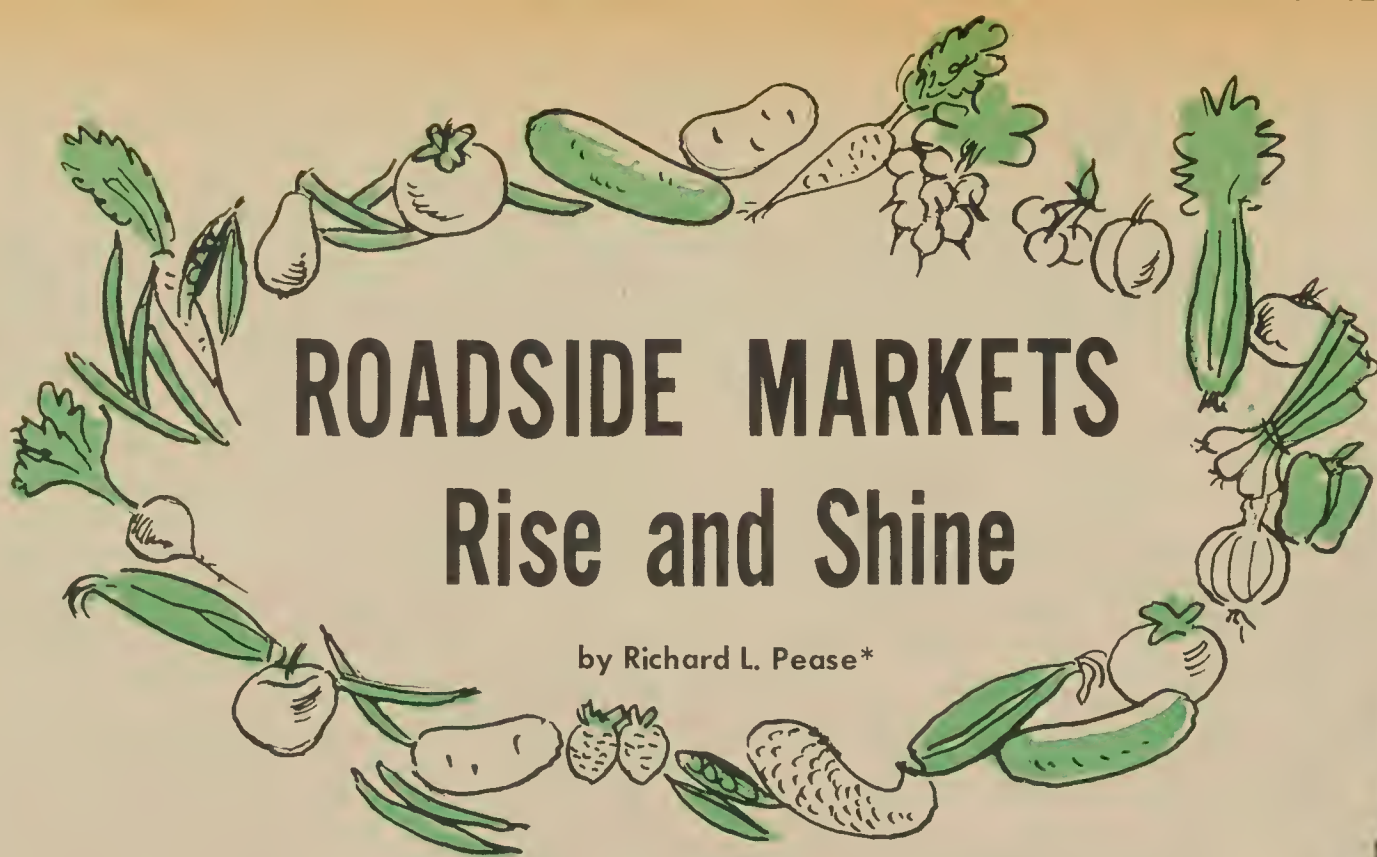
makes it especially easy to maintain proper belt tension. Extra-large sheaves give you extra-long belt life. High-quality, tapered roller bearings provide smooth, quiet operation.

If you're looking for "beef" the new John Deere 37 Trail-Type, 38 Caster-Wheel, and 39 Three-Point-Hitch Mowers have that, too. Frame, hitch points, flywheel, yoke, drag bar, and cutting parts—they're all extra heavy.

Yes, sir, if you would like to put new speed into your haying operation, get a new John Deere 30 Series Mower. See your dealer—the man who sells and services *The Long Green Line of John Deere Hay and Forage Equipment*—for complete facts and figures. Ask him about the 10 Side-Mounted Mower and all the advantages that a mid-mounted mower has to offer. Use the Credit Plan.

JOHN DEERE
Moline, Illinois





ROADSIDE MARKETS

Rise and Shine

by Richard L. Pease*

Mrs. Carl Zehr takes an active part in the operation of a roadside market near Newfane.



THE ART AND SCIENCE of successful roadside marketing has developed gradually among producers of farm products with the coming of the automobile. And successful roadside marketing is truly both an art and a science. It is a combination of talents that include human relations and an imaginative display of produce. Combined with these goes production specifically for retail sale, proper construction and layout,

* Assoc. County Agr. Agent,
Niagara County, N.Y.

grading and packaging, sales management, and advertising.

Farmers have an acute need to retain more than the wholesale price for their commodities. The success attained by some people in the roadside marketing business proves that it's profitable to merge traditional production knowhow with newly-acquired selling techniques.

One of the research tools Extension people use is the customer-flow study. Data is recorded on from 50 to 100 customers at one

market, such as age, sex, time spent, locations visited, items purchased, and total amount spent. This information can be used by the operator in planning display changes, size of packages, or how to get more ladies to stop and buy.

As a county agricultural agent, I have seen Western New York's farm roadside markets grow and prosper in recent years. Let me introduce you to some of our typical area markets and the people who run them:

Kathy Weaver, Stone Road, Lockport (11 years old) sells the produce from her 4-H garden project with the aid of an eye-catching 4-H cloverleaf sign. Kathy is the daughter of Mr. and Mrs. Lyal Weaver, is a first-year member of the Hickory Corners 4-H Club, and in 1964 achieved second place in Niagara County in the Sears Roebuck vegetable garden project. Her most successful crops at the sales point were pumpkins, gourds, Indian corn, zucchini winter and summer squash, and snap beans.

Pumpkins are a popular item at roadside markets in October throughout the Niagara Frontier area. The crop is quite easily grown, and usually yields a good tonnage of Jack-O-Lanterns. Very few pumpkins are now sold for making pie, though.

Dick Watson, son of Mr. and Mrs. Richard Watson, Transit Road, Lockport, parlayed pumpkins grown in his 4-H vegetable garden into a college education; he graduated from the College of Agriculture at Cornell in June of 1964. Mrs. Watson testified that pumpkins paid for three terms at Cornell, and that other sales at their roadside market enabled both Dick and his sister Priscilla to complete their education at Cornell. Priscilla recently served as assistant 4-H club agent in Ontario County.

The Watson market is an excellent example of step-by-step progress in the development of good retail outlet. Until 1963 the market structure was a small frame shelter resembling a portable brooder house. By "saving their

pennies" Mr. and Mrs. Watson were able to construct a much larger market, with an interior sales area, good lighting, and located to make room for parking as many as eight cars at one time.

Quality, not price, is the byword of successful direct marketers. Building a reputation for one or more items takes time, but a clientele can be built up gradually by strict attention to grading, and by offering quality produce. The cooking qualities of potatoes... sweet corn picked worm-free before sugar turns to starch... and vine-ripened hybrid muskmelons... all can help build a good reputation.

Mr. and Mrs. Laverne Betts, Route 104, Middleport, sell their home-grown potatoes, peaches, and apples from their shady front lawn, with only an open "shanty" serving as the check-out point and storage for containers. Although the rush of business occurs on weekends, Mrs. Betts is convinced that the local people come during the week because they depend on this nearby source for dependable produce. This farm has a reputation among local folks for potatoes that cook white.

Mechanization Brings Change

Mechanization of snap bean harvest in recent years caused an important change in the crops and marketing methods on the Herbert Schwab Farm, Route 31, Middleport. In recent years Herb has grown from 50 to 100 acres of snap beans for processing. In the days of hand picking this was a large acreage, but as the mechanical bean picker took over it became necessary to grow at least 200 acres of beans to use the expensive machine to capacity.

With the Schwab farm already devoted to a large acreage of fruit, and more cropland needed for a large beef and swine enterprise, there were not sufficient acres suited to a large increase in snap beans. Herb's logical conclusion was gradually to switch to crops that could be marketed mostly retail, and which complemented

(Continued on page 40)



The roadside market on the Nichols farm near Lewiston offers customers a fine view of the crop production area.



Kathy Weaver, youngest roadside marketer in Niagara County, finds Indian corn a popular October item.



Crescent-shaped counter in center of E. T. Campbell Market is convenient for both customer and clerk.



"I figure the Ejector is standard equipment for haying these days."



**"I've seen my John Deere 24-T
do the work of bigger balers
yet it cost much less"**

A Maryland dairyman reports:

Paul A. Crowl and his father, Carroll W. Crowl, farm about 500 acres near Street, Maryland. Mr. Crowl milks around 102 head and has approximately 50 to 60 head of young stock. He raises hay, corn, and barley and feeds it all. Mr. Crowl likes to hunt and enjoys fishing but it generally interferes with his work. He also raises burros as a hobby. Mr. Crowl and his wife, Betty, have two children—a son, David, age 14, and a daughter, Marilyn, 11.

"We've owned two John Deere 14-T Balers before we bought our 24-T with No. 2 Bale Ejector. I bought this baler for a couple of hundred dollars less than the 14-T, yet I've got just as much capacity. I've seen my John Deere 24-T do the work of bigger balers yet it cost much less. You can't ask for more than that. **"This is our third year** with the John Deere 24-T. This baler packs away a lot of hay. I don't know how many bales we've put through it, but there have been a great many. We've put up over a hundred acres of hay this year already (June 4, 1964). Our maintenance costs have been very low in over two years' operation.

"I figure the Ejector is standard equipment for haying these days. It saves at least one man on the wagon and, of course, another man at the barn if you random stack. The pivoting feature of this Ejector is perfect for our hilly land and on corners. We have plenty of

contours so we use the hydraulic swivel constantly. It's easy to pitch bales into the wagon and put them where you want them. And these are good, tight, square bales the 24-T puts out. I like the fact that this Ejector is baler-driven and doesn't require a costly engine. **"I'm going 100 percent John Deere** because I don't think you can beat John Deere Equipment."

Like Mr. Crowl, you can save labor and money with a John Deere 24-T Baler with Ejector. See your dealer—the man who sells and services *The Long Green Line of John Deere Hay and Forage Equipment*—for complete facts. Ask about the Credit Plan, too

JOHN DEERE

Moline, Illinois





Detailed soil maps, using aerial photos, are prepared by Soil Conservation Service technicians for use in farm planning. Above and around picture is topographical map.

Blueprints of the Earth

by Ernest Hardy

THERE ARE FEW other places in the world where the public has access to a wealth of inexpensive maps as they do in this country. Maps serve a serious purpose as planning tools for farmers, business men, and local government officials. A great many hunters, fishermen, local historians, naturalists, and open country enthusiasts also find detailed maps a big help in enjoying their favorite hobbies.

More and more farmers are being called on to serve on local government boards, planning councils, and county-wide and regional projects that rely heavily on available maps for much of their basic information. Farmers also make use of several types of maps in the planning and operation of their own farm businesses, in locating buildings, drainage ways, and in deciding on the purchase of land.

Wide Range

There is a very wide range in the prices one can pay for maps, all the way from \$40.00 for a three dimensional plastic map of a state down to the free road maps provided by local gas stations. There are, however, three sources of inexpensive detailed maps of local areas that allow a farmer to locate his own property and provide a good base map of an area for either planning or hobby purposes.

Topographic maps are readily available for all parts of the Northeast. These are produced by various government agencies, but are usually on sale locally at some book or sporting goods store. If these sources fail, a letter to the Map Information Office, United States Geological Survey, Washington 25, D. C. will bring a free index map of any state requested, plus price and available coverage information for several types of maps. Most of the topographic maps cost thirty cents a sheet.

Topographic maps for the Northeast are

frequently available in several scales. Recently the large scale map (2½ inches to the mile) has become a popular favorite, but the same areas are often available on maps at scales of one or two inches to the mile.

Detailed Information

The detailed information available on these maps varies somewhat with each scale, but in all cases a great amount of surprisingly accurate information appears. The features shown are divided into three main classes, distinguished by the colors in which they are printed. Water features, including lakes, streams, swamps, and canals are shown in blue; cultural features, or the works of man, such as roads, trails, railroads, and buildings are shown in black; and the shape and steepness of the earth's surface, commonly called topography, is shown in brown. Green is also used on many maps to show various types of tree cover; red shows major roads, built-up areas, and public land subdivisions.

County and township boundaries are carefully located, and on the most recent maps ownership boundaries are often indicated. Houses, barns, churches, schools, cemeteries, and a wealth of other information of local interest is recorded on these inexpensive maps, which most people consider the real bargain at the map counter.

Sportsmen make considerable use of these maps for locating choice hunting and fishing spots; hikers and naturalists find them fascinating aids to their hobbies. Local historians often cherish

one of the earlier topographic maps published in the late 1800's, for it shows the site of all old houses and homesteads, public buildings, railroads, roads, etc.

Soil maps, usually published on a county basis, are a second source of detailed information. They are designed for many uses, but most often are associated with farm activities and used by individual farmers in planning their farm operations.

Most of the earlier soil maps were published at a scale of one inch to the mile, and the soil information was superimposed on 15 minute topographic maps (a minute is the mapmakers' way of saying the sixtieth part of a degree). These are the soil maps most commonly in use today. The map is usually accompanied by a bulletin that gives a great deal of information about the agriculture and distinguishing characteristics of the individual soils of the county.

(Continued on page 42)



Aerial photos like this are available for your area; they are useful for serious planning or for recreation. A surprising amount of detail is visible to a trained observer.



Feedbag for crops

Like the finest animals . . . your crops need both balanced and complete nourishment. And Royster BONANZA's *completely* modern, scientific formulation takes all the guesswork out of fertilization. BONANZA supplies *all* the vital plant food elements your crops must get from the soil. BONANZA helps maintain present soil fertility . . . and brings you the money-making results that come from maximum yields, highest quality.

What do your crops need to make you the biggest profits? They must have proper amounts of Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Boron, Chlorine, Copper, Iron, Manganese, Molybdenum, and Zinc. And *these* are the plant foods your crops get . . . when you feed them BONANZA!

No plant food element can substitute for another. *All* elements must be returned to the soil. Replacing just a few of them won't do the

job. More profit-minded farmers are now relying on BONANZA than ever before. The reason? BONANZA *produces* for them! And it will for you, too. See your Royster dealer for BONANZA . . . the best feedbag for crops.

Royster

FERTILIZERS AND CHEMICALS

F. S. ROYSTER GUANO COMPANY
Lyons, New York

This story is an excellent illustration of why we of American Agriculturist believe so thoroughly in the tours we sponsor. One can be re-created through just "getting away from it all" for a time.

IT WAS late November. I had to get away.

"We've always wanted to see the mountains," my husband suggested; he knew it would take more than a new hat this time.

We had started a farm five years ago; the result was a jumble of kids, cats and canines. Milk pails, puny pigs, and temperamental hens didn't help, either. In five years I had become a woman with mountainous problems, most of which sprouted from a farm's reversal tendencies.

We told the children — "There's Uncle Gerhardt. He'll take care of the cattle." One of them suggested, "Grandma could keep the house and make us mind."

"Sure, Mom!" my four children chorused (they were 10, 7, 4 and 3 years old). "Do, Mom! You'll be back in time for Christmas."

They meant it! They would really let me go!

I must have packed our suitcases — I don't remember. The next thing I knew we were boarding the train and heading Northwest into the bleak, cold prairies.

Hans and I had reached that comfortable stage in our marriage when words were unnecessary. We could sit in absorbing silence for long periods of time, each being able to stand a heap of letting alone.

"Our home for thirty-six hours!" Hans sighed. He took off his topcoat and put it next to mine on the rack above us. I stared out of the window. What was I? Where was I? Why was I? Our 70 registered Brown Swiss suddenly paraded before my eyes; I saw old Ellie and her litter of pigs, the fussy laying hens — and my four children, full of noises and motions. My head ached for Grandma, back home; my back bowed for Uncle Gerhardt doing the farm chores.

"They are there and we are here," Hans said, as if reading my mind.

"Last call to dinner," a pleasant voice announced on the intercommunication system of the dome coach.

A Gallant Escort

I hadn't thought of food. We meandered back to the diner. Through the blizzard that my brain had become from juggling costs and income, finding lost mittens, and soothing leg aches, I was glad I could accept the mood of the diner. My husband, a more gallant escort than I had remembered, flicked the roses in the vase on our table with a reverent air. My eyes were dewy as I studied their perfection.

"Roses!" I breathed. The last

roses had been my wedding bouquet.

After a sumptuous dinner I found, like a homing pigeon, my course was bent for the suds and dirty dishes. I steered past the kitchen door and sighed with relief. But still my mind was a snowstorm of indecisions, my muscles

I "FOUND MYSELF" in the CASCADES

by Eileen M. Hasse

ached, and my spirit sagged. Once back in the dome coach I sat like a robot — not thinking, not talking; passengers didn't amuse me.

Not feeling it within my power to share myself with fellow travelers, I listened to their chatter (apparently giving satisfactory answers to their chit-chat) while my husband went to the dome to watch nightfall approach.

Soon I slept. The reclining chair was heaven. No interruptions of toothaches or nervous dogs! There was not so much as a hint of a dream to hinder my complete relaxation. I drifted, body and spirit, with the gentle rocking of the train as it bored a hole steadily through the blackness ahead.

The Badlands

"The Badlands!" I came back from sleep to hear a familiar voice. Hans was studying the guide he had taken from the rack in the dome coach.

Daylight! Suddenly, I felt an overwhelming excitement. Here in the Badlands would I find myself, feel my purpose, regain that effervescence that had slowly gone stale through the years?

I followed Hans automatically as he led the way to the dome, and took the seat he indicated. Then I began to absorb the bleakness of the enormous waste before me.

"People are like that, sometimes," I said.

Hans nodded.

People like myself, I thought. Twenty adult years, 365 days a year, 24 hours a day! What have

I done with it? What will I do with the years ahead?

The rocks, inert, lifeless and bare, were alive with color. The sun drew out beauty from the waste; shades of salmon pink melted into warm grays; the warm gray gave way to slate blue, and suddenly yielded to sunshine



yellow. It was an inspiring sight — yet the vastness of the barren earth depressed me.

"Perhaps, some coffee?" I turned to my husband.

We wove our way to the snack bar.

"Must have been some journey in the early days," Hans mused, watching the bleak landscape race by.

Back in the dome coach again, we watched the great, vast countryside slide past. No, I was not there — not in these stones, these lifeless monuments of nature. I still had life. Having life, I must fight. I must search for myself. Was I not important? Didn't my children, the cattle, the hens, and my husband depend upon me? Was I not the main spoke that kept the farm rotating? I turned away. I refused to identify myself with these barren buttes.

The Great Divide

Background music whispered through the coach, and the ribbon of rail before us brought city after city. To the tune of "Wooden Soldiers" we marched up, up to the brink of the Great Divide. Paul Bunyan-sized footballs of rocks threatened to dislodge and mash us; large slices of great stone cake perched atop pedestals and platters.

"What huge hand could have dropped this mass of stone?" I said to Hans. If a Maker could toss a mass of stone as I would toss a handful of pebbles, could anything be impossible? I gave myself to wonder and fear — but

I could not find myself in the Great Divide!

The background music lightened to a waltz, and then came the rapid descent into Butte, Montana, the city doomed to be destroyed by the very mines that feed it. Veins of copper and manganese are eating into the heart of the city like

an internal cancer, causing basements to crack. Before long buildings will be unsafe, and the people forced to leave. That is life. What is a building, a family, a city, a farm? What is a farmer, a farmer's wife? What am I?

A nap, a night of snowfall, and then the Cascades! I awoke to evergreens towering far above our railway coach. I could look down, down into the deep ravine and scarcely see the bottoms of the evergreen giants. There were no sighs from the pines as they nearly brushed my window, just a majestic salute from these tall wonders.

Our train wound cautiously through the mountains, never so much as dislodging a gob of the snow that lazed in the emerald branches. Soft carols sounded through the dome car — just ten days until Christmas! A hush settled over the car, and travelers sat in silent awe of the landscape slipping by. This was for me! Giants! Green with life, reaching to the heavens, yet daring to keep their feet on the ground!

The ribbon of rails wound down and around, creeping over the crest and stealing across the abyss. Suddenly, there I was, relieved of all my importance. I had found myself, a mere ant, crawling along a shoestring of rail through this God-given country. I was a mere cog in the huge machine of civilization.

Home Again

My burdens lightened. Importance as a mother and as a farm-

(Continued on page 43)

**Purina is proud of
Floyd Blaser, known
in New York's
Finger Lakes
area as**

the man in the Checkerboard tie

Floyd Blaser is a recognized authority on livestock and poultry feeding. He knows what it takes to make money in the production of meat, milk and eggs. He has made it his business to find out.

Floyd is just as much a professional man as your doctor, lawyer, banker or dentist. These men all have one thing in common . . . they serve. And so does Floyd Blaser and the man in the Checkerboard tie in your part of the state.

A native of Kansas, Floyd graduated from Cornell University with a Master's Degree in Agriculture and joined Purina 17 years ago. Since then, he has taken part in every Purina training course offered and often is asked to help train our younger men.

Floyd serves the Purina dealers and the farm people in Monroe,



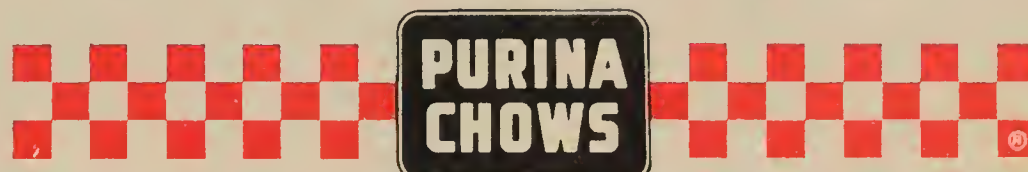
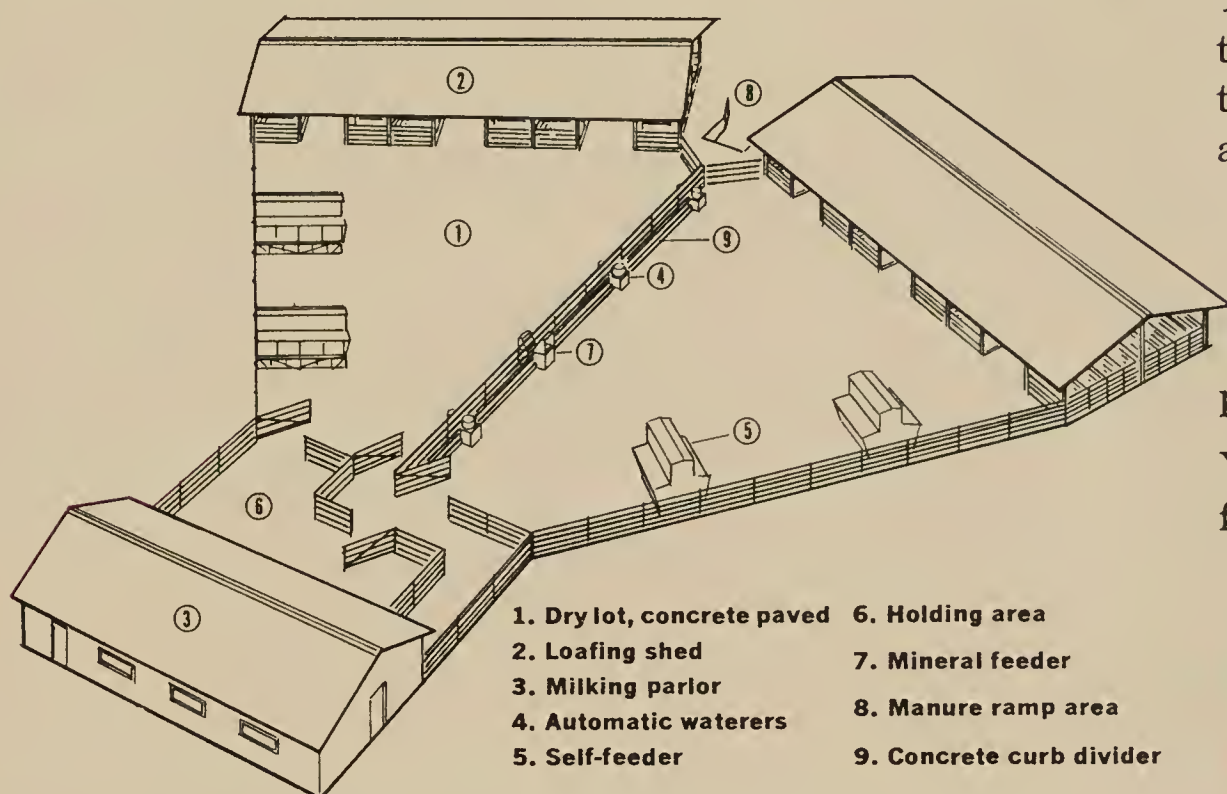
Wayne, Ontario, Yates and Livingston Counties in the Rochester area. He also is an active member of the Ontario and Wayne County Extensions and the Ontario County Poultry Association.

Yes, Purina is proud of Floyd Blaser. Like all the men in the Checkerboard tie, he is dedicated to giving the livestock and poultry feeders in his area the kind of service, leadership and advice that it takes to make top returns from feed dollars.

Typical of the type of leadership available to you through the man in the Checkerboard tie in your community is the new Purina Milk Factory concept. This revolutionary new approach to low cost milk production often does away with the need for pasture, hay, silage, or green chop. It may drastically lower your investment in machinery, land, fences, fertilizer and other factors making up a large portion of your milk production costs. It may be just what you are looking for!

Your Purina dealer or salesman is the man to see for further information on this new development.

Ralston Purina Company • St. Louis, Missouri



How do we Clobber THE ALFALFA WEEVIL?

by George G. Gyrisco*



THE 1964 SEASON found the alfalfa weevil spreading to many new counties in Central and Western New York until it is now found in 31 counties as far west as Lake Erie. Infestations were found in 10 new counties in New York in 1964. These include Cattaraugus, Cayuga, Chautauqua, Chemung, Chenango, Cortland, Essex, Montgomery, Schuyler and Tompkins counties.

The control of insects on forage is weathering a storm brought about by important advances in technology which make the detection of most chlorinated hydrocarbons speedy, simple, and more precise than ever before. During this period of transition, we are finding that we have to modify . . . even to retract . . . certain statements and recommendations that we were fully convinced were excellent in all respects.

Biological Control

In cooperation with the USDA, we released two new species of parasites that give some natural control of alfalfa weevil, and we recovered a third species in the Ghent area of Columbia County from 1963 releases indicating that *Bathyplactes curculionis* is now successfully established in the Hudson Valley.

We will continue to push the parasite program as rapidly as possible, but farmers should not expect too much too soon. Hopefully, in the future these parasites will reduce weevil populations to such levels that mediocre controls with mediocre insecticides will prove fully satisfactory.

In the future I expect a combined program of parasites and insecticides will be our answer to growing good alfalfa. With widespread infestations of weevil, and with more interest in good quality, we expect more insecticides to be used on forage crops in 1965 . . . but all of us should dedicate our efforts to a better and a more responsible job in their use.

How to Recognize

The adult is a robust, brown snout beetle or weevil about 1/4

*Dept. of Entomology, Cornell University, Ithaca, N.Y.

inch long, with a dark brown, v-shaped stripe extending along its head, thorax and back. At first the weevils are rather tan in color but later change to dark brown or nearly black, as scales are lost from their bodies.

When fully grown, the larva is nearly 1/2 inch long and has a

cannot now be legally used on alfalfa. However, with continuous close observation of each alfalfa field (maybe twice a week), with proper timing and careful, thorough applications, good (if not outstanding) alfalfa weevil control can be achieved with the presently-labeled and recommended insecti-

RECOMMENDATIONS FOR NEW YORK STATE

Insecticide	Dosage lbs. actual per acre	Tolerance	Min. Days From Last Application to Harvest or Feeding	Further Limitations
Methoxychlor	1.5	100 ppm	7	Must wait 7 days in feeding or cutting hay treated with this mixture.
plus malathion	1.25	135	0	
Alternatives in order of recommendation:				
Methoxychlor	1.5	100	(7)	Must wait 10 days in feeding or cutting hay treated with this mixture. May cause plant injury.
plus Diazinon	1.0-1.5	40	10	
Parathion	0.5	1	15	Highly toxic to hu- man beings. Must be applied only by a trained operator. May cause plant in- jury.
Methoxychlor	1.5	100	7	See No. 1 above also.
Malathion	1.25	135	0	May be grazed or harvested on day of application.
Diazinon	1.5	40	10	*Do not treat during bloom. Do not graze livestock for 2 days following last appli- cation. Do not cut hay for 10 days, after which time may be fed to live- stock. May cause plant injury.

*These comments also apply where Diazinon is used in a mixture.

green body with a wide white stripe and two fine white stripes down the middle of its back. It has a distinct head which is black or dark brown in color. The very young larvae are pale yellow.

Both the adults and larvae feed on the top leaves, buds and young shoots. The leaves are skeletonized and young shoots are often completely destroyed. The injured leaves dry up giving the field a greyish, white cast much like that caused by frost (most noticeable on first cutting).

What To Do

The use of insecticides in the fall to control the alfalfa weevil for the following growing season has many advantages. But, unfortunately for us, none of the presently-labeled insecticides under presently-known fall schedules gives commercial control of the alfalfa weevil! This means that we are now fully committed to one or more spring treatments for alfalfa weevil control.

First and foremost, I want to state emphatically that none of the presently labeled insecticides for alfalfa weevil will give us outstanding control as did heptachlor or dieldrin, which must not and

cides. We strongly endorse such treatments when necessary.

General Rules

Growers should follow these general rules of thumb for alfalfa weevil control:

1. Do not treat any field of alfalfa unless it is absolutely necessary to do so, based on field history or current weevil populations or damage. Remember adjacent fields of alfalfa may vary over a hundredfold in population and damage. Do not treat too soon or too late. If the crop is "made," that is, tall enough, harvest rather than treat and watch for damage on the aftermath. Then, if needed, treat.

2. First and foremost in controlling alfalfa weevil in New York, harvest the first crop early for silage or mow-dried hay. If it is impossible for you to do this and feeding damage warrants it, treat only with methoxychlor, malathion, Diazinon, parathion, or certain combinations of these (see table for dosages, timing, and precautions).

3. Do not treat too early . . . these insecticides do not persist. They do not leave an effective

(Continued on page 38)



the new Agway:

Complete Crop Program builds higher grass yields even in a drought year

More grass from every acre . . . 72.9 percent more!—This is the result of actual 1964 farm use of the Agway Complete Crop Program for Grass.

Participating farmers, all in rugged up-state New York, used the Agway recommendations. In each location a 'check' area was isolated for comparison.

The result—an average increase of 72.9 percent over the check areas—proved that this Agway management program can help push grass forage acres to higher production even under drought conditions.

Drought this year or not, your best move is

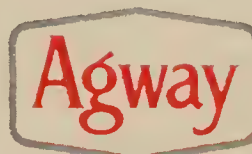
to allow Agway to help plan a grass program now. Start early with an application of Ferti-Flow Fertilizer, Agway Ammonium Nitrate, or in many communities the Agway custom application of liquid nitrogen. If you choose nitrogen alone, apply immediately the required phosphorus and potash. Early stimulation of growth by the right fertilizer is one of the most profitable of grassland practices.

Investigate Agway's Complete Crop Program for growing top yields of grass—one of your cheapest sources of energy for high milk production. It's a companion program to the successful Complete Crop Program for

Corn, which under severe drought conditions has doubled yields of corn. Do it today.



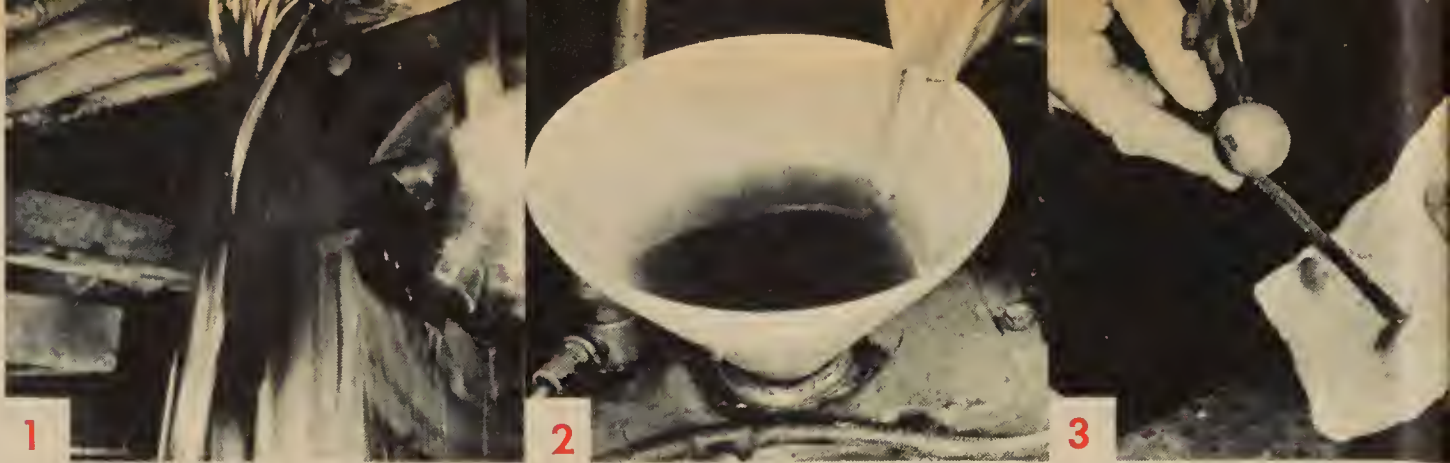
A *SPECIAL* booklet to help you grow more and better quality roughage is available now at your Agway Store or Representative. Pick up your copy of the "1965 Agway Complete Crop Program for Hay and Pasture Establishment and Maintenance" today. Agway Inc., Syracuse, New York.



COMPLETE CROP SERVICE
for greater net returns

Remember that rhyme beginning, "One for the money, two for the show"? It was used by many a small boy to work up courage to jump out of bed on a cold winter morning!

It's that time of year again when farmers are preparing for zero hour just before jumping off on a spring campaign. Here are a dozen things that you can do ahead of that campaign to save dollars and cuss words later when the dust begins to fly across the land.



Three to get Ready and Four to go !

by Wes Thomas

1. CRANKCASE — Drain the winter oil and replace with a heavier, summer weight; do this when the engine has been thoroughly warmed up. If your tractor has a filter, change it also.

2. HYDRAULIC SYSTEM — Most hydraulic systems should be drained and refilled with new oil at least twice a year. This gets rid of dirt in suspension, and water formed by condensation.

3. TRANSMISSION — Check the fluid level. If your owner's manual specifies a heavier lubricant for summer use, change it now. Otherwise, merely add oil to bring it up to the proper level.

If the oil in the transmission case is above the correct level, you have a warning of trouble ahead. On some makes of tractors, oil leaking from the hydraulic system enters the transmission case. This leakage may cause damage in three ways . . . (a) dilutes transmission oil, so gears are no longer properly lubricated, (b) hydraulic system pump can be ruined from lack of lubrication, (c) if leak allowed to continue, level of oil in the transmission case can become so high that the oil runs onto the brake drums and ruins the linings. So, if the transmission case seems to be "gaining" oil, have your dealer investigate at once for leaky seals or gaskets.

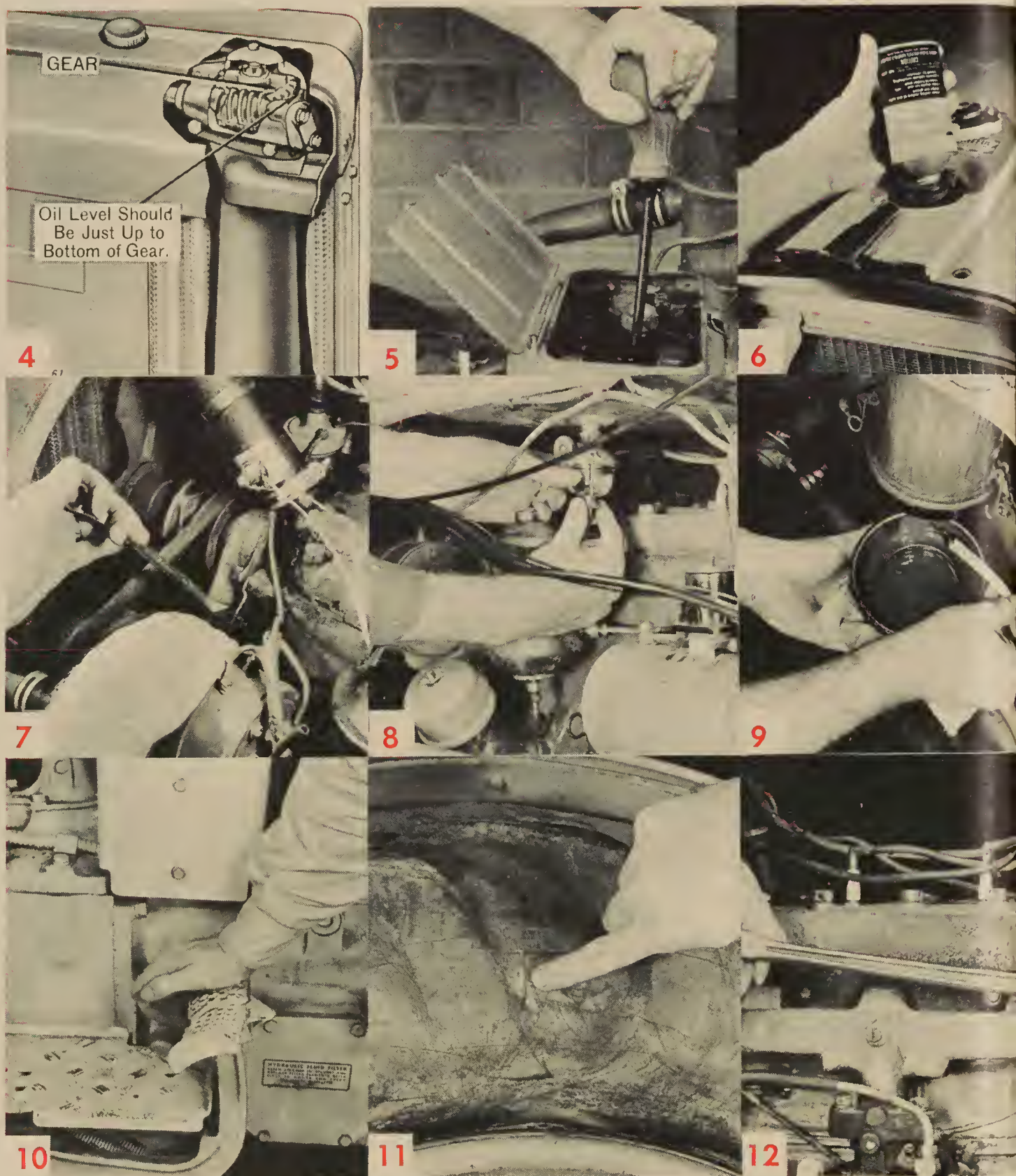
4. STEERING GEAR — Check the level of the lubricant in the gear case. If needed, add oil to bring it up to the recommended level. On most tractors, it is not necessary to drain the present oil.

5. BATTERY — Be sure that the liquid is at the proper level; check this at least once a week during the summer. If the level is low, add soft water. Clean any corrosion from the top of the battery case. Be sure that the terminals are tight, and coat lightly with vaseline. Check the battery hold-down clamps to see that they are in place. Operation of the tractor over rough ground will shake things up enough to break the case of an improperly-secured battery.

6. RADIATOR — Drain last winter's anti-freeze; if it looks rusty, it's probably best to discard it. You will probably need to clean the rust out of the interior of the cooling system. A system that is not too severely rusted can be cleaned by the use of a solution of washing soda and water. After filling the system with this solution, run the engine long enough for it to reach normal operating temperature. Drain, and flush several times with clean water; run the engine each time to get complete circulation.

Extremely dirty radiators are best cleaned by the use of a commercial cleaner. Be sure to follow the directions carefully to avoid damage.

Add some rust inhibitor at the final filling to help prevent further rust formation. It will not, however, clean up a dirty radiator.



7. FAN BELT — Check the fan belt for condition and proper tension. Look at the underside . . . breaks generally start there. A loose fan belt will slip and prevent the cooling system from doing the job properly.

8. FUEL FILTER — Remove and clean the sediment bowl. This will help prevent the carburetor from becoming clogged with small particles of dirt. Be sure that the gasket is properly in place when replacing the bowl.

9. AIR CLEANER — Remove and clean the oil cup; scrape out the caked dirt in the bottom. Wash the bowl with kerosene or solvent. Refill with the same weight new oil as you use in the engine crankcase. Do not fill the cup above the marked level; this can be just as harmful as too little oil. If your tractor has a pre-cleaner or a screen over the air intake, be sure to clean it also.

10. CLUTCH AND BRAKES — Adjust free play in the foot clutch or the over-center action of the hand clutch. Tighten the brakes if necessary, and adjust so that both pedals take up evenly. This will help avoid dangerous side swerves when operating in road gear.

11. TIRES — Check for any signs of breaks or cuts in the casings. It will cost less to have them repaired now than when the tire goes flat this summer. Check the rims of the front wheels for dents that can pinch tubes and cause blow-outs. If bent, straighten the rim by pounding out with a sledge. Also, check the inflation pressure of the tires.

12. NUTS AND BOLTS — Last, but by no means least, go over the entire tractor, and tighten all nuts, bolts, and capscrews that have worked loose. This simple precaution often prevents serious and costly damage at a later date.

Do you work the haying in between cultivating the corn, or the cultivating in between the haying?

You can't be cultivating corn and harvesting forage at the same time. But, sure enough, your corn usually needs cultivating about the same time your forage is right for the first cutting.

Either you have to neglect one crop for a while or you have to eliminate one job. A broadcast spray of Atrazine 80W herbicide can eliminate the need for cultivating your corn because Atrazine controls most annual broadleaf weeds and grasses . . . for the entire growing season.

You can spray Atrazine at planting or after planting, until weeds are about 1½ inches high. Rainfall moves Atrazine down into the weed root zone, where it is absorbed by weed roots. Keeps weeds and

grasses under control from planting right through to harvest.

Spraying Atrazine to grow clean corn saves you time, labor and equipment for other farm jobs. And it helps boost your corn yield two ways. Your corn gains the moisture and soil nutrients which would have been taken up by weeds. And you save corn feeder roots from being pruned by the cultivator.

Think Atrazine will work for you? Sure it will. For full details, just contact your local supplier or custom spray applicator . . . or write us.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.



Geigy
CREATORS OF CHEMICALS FOR MODERN AGRICULTURE
Atrazine

HERE COME THE HORSES!

If Justin Morgan has been watching this land of ours from wherever horse lovers go, he must be happier now than he was twenty-five years ago. The "passing of the horse" has reversed itself to such an extent here in the Northeast that a whole new generation of horse owners find themselves possessing more light horses than have been in this area since the time of World War I.

However, many members of this generation find themselves with little of the knowledge of horses that their grandparents had. Country children can't understand why grandma, who grew up in Brooklyn, knows how to hold the reins and drive a road horse, while mother, who grew up in the Berkshires, doesn't know a filly from a founder.

Someone recently asked me what was the greatest problem we veterinarians found when suddenly asked to care for horses after a fifteen-year lapse. There are two problems: the first is restraint and the second is nutrition, which could be broken down to feeding and parasites.

The purpose of this column has always been to promote better cooperation between animal owners and veterinarians, to attempt to show you how you could make better use of veterinary services. One of the reasons many veterinarians don't warm up to horse practice is that some horse owners don't realize that it takes two people to work on a horse. When you call your veterinarian to take care of your horse, make sure you are going to be there when he arrives. The first step in restraint is to hold the horse by a bridle or halter. A horse always behaves better for injections, worming, etc. when the owner is present.

Catch Him First

It should go without saying that the animal should have been caught before the veterinarian arrives. You might be able to catch Old Pancho any time without difficulty, but I'll bet when Doctor Jones walks into the yard he'll take off and stand looking at both of you with that "catch me if you can" look that only Old Pancho can get.

The next step in restraint is to pass a lead chain under the horse's chin through the halter or bridle rings. A little soft, firm talk goes a long way. There is nothing that will "spook" a horse quicker than an owner who starts to shout at him at his first flinch.

If you have a "spooky" horse that will strike or rear, tell your veterinarian so a twitch can be used before the horse becomes too excited. The twitch is not cruel. The most important thing about using it is to hang onto it when the horse jumps. A slightly sore

nose on Old Pancho will heal a lot faster than a broken arm on you or your veterinarian.

Tranquilizers are a great help for many minor jobs, such as passing a stomach tube or floating teeth. Your veterinarian will use them when he needs them. Perhaps he may have you pick up some oral tranquilizer at the office to give in the morning grain so Old Pancho will be as quiet as little Nellie when he arrives to treat him at eleven.

Feed Requirements

Now that we've got Old Pancho all tied and tranquil, why is he so thin? Is he receiving a pound of grain and a pound of hay for each one hundred pounds of his normal weight? If he isn't working hard, one half pound of grain and one-and-a-half pounds of hay per hundred pounds of weight is enough. His grain should be oats or a commercial horse feed, not cows' grain. His hay can be any good, clean, dust-free hay. Alfalfa is wonderful, if dust-free. Clover should be avoided unless very dust-free.

The better the hay, the less grain your horse needs. Hay should be shaken up to eliminate dust, not fed in the "slab". A horse should have access to a salt block, and if working hard in hot weather should be given an ounce or two of salt twice a week with his grain. If the horse is growing, or if it is a female carrying a foal, she should be fed a good mineral mixture. Water should be available at all times.

If you are doing all these things and Pancho is eating well, and is still thin, you'd better have Doctor Jones check his stool (manure) for worm eggs. The worms that cause most of the trouble are too small for the naked eye to see in the manure. They are strongyles, no bigger than an eyebrow hair. Your veterinarian can give you worm medicine to feed or, if your horse is difficult to dose, he may decide to pass a stomach tube or give him the medicine with a balling gun.

If the time of the year is between November and February, and Pancho is thin but doesn't show many worm eggs, your veterinarian may decide to "bot" him, too. Bots are parasites which start their cycle on the hair of the horse's legs as a yellow egg laid by a bot fly. The horse licks off the eggs and they hatch inside his digestive tract, where they burrow into his body and pass through the blood. After a while they end up back in the stomach, where they become attached to the stomach wall. There they grow to the size of a grain of dent corn. A horse's stomach may contain hundreds of them. In spring or late winter the horse passes the bots and they fall to the ground, to hatch into bot

flies to start the cycle all over again.

If you have several horses, or if Old Pancho is pastured with several other horses, your veterinarian may put him on a combination phenothiazine and mineral vitamin mixture to kill worms as the eggs hatch in his digestive tract. These mixtures are expensive, but are well worth it in the protection they afford against

worms, although they do not protect against bots.

There are many other troubles Old Pancho can get into, but if you feed him well enough to take care of his needs, and keep the parasites out of him, he'll probably not suffer from them much. The pride you will enjoy in a slick shiny horse has no price on it. You'll know how Justin Morgan felt when he was in his heyday!

Food For The Spirit



by Robert Clingan

The Constant And The Given

Man in times of turbulence and unsatisfied hungers reaches out for the fixed and the given; he wants some constants in a world of change. His desire is for the given in its original and ultimate form. He tires of the fabricated, the packaged, and the man-made. From the depths of his soul he cries out, "Give us, O God, one of your original gifts."

Now the gifts of God are many. One of the most obvious to the rural dweller is the succession of the seasons. The wind will change; drought and flood may visit his land. He may experience what he describes as "unseasonable weather," the so-called "waves" and "record-breakers."

Yet beneath all the changes of the atmosphere and variations in rainfall, a man knows that there is a fundamental pattern, described as the "succession of the seasons." The Bible declares it in the promise of God to Noah, a promise sealed with the rainbow, "While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease."

Each section of the earth has its own patterns of the seasons. For our area there is winter, followed by spring, summer and fall. Between late spring and early fall there is a growing season on which the life of us all ultimately depends.

This observation reminds us that our God, the creator of the heavens and the earth, is not a whimsical tyrant who gives and cancels his commands. Rather, He created a world of law and order, of seasons that follow each other in orderly progression. The Bible also says that God who created it called it good, and declares, "He hath made everything beautiful in its time."

So, as man searches for the given and the constant in this fabricated world of turbulence and change, he may observe the succession of the seasons and take courage. These things are given. These things remain, and this great truth about the earth gives our lives a source of stability and strength. Thank God for winter and summer, spring and fall, and the growing season that blesses

each year and enriches the life of us all. Thank God for the spring when the snow melts, the trees bud, flowers bloom, and nature herself prepares the land for the spring plowing, the seedtime and the ultimate harvest.

No wonder the poet Frances Whitman Wile wrote, "All beautiful the march of days as seasons come and go:

The Hand that shaped the rose hath wrought the crystal of the snow."

MEET ROBERT CLINGAN

Robert L. Clingan, who authors the regular column "Food For The Spirit," was born March 14, 1914, in Long Beach, California. He received most of his formal educa-



Robert Clingan

tion in California, graduating from the University of Redlands in 1936. Between college and seminary he spent a year in various employment experiences, from "sample chaser"

in a sugar mill to a case worker for the California State Relief Administration. He came East for his ministerial training, and was graduated from Colgate-Rochester Divinity School in 1940. That same year he married Marjorie Greenough of Port Henry, New York. From 1944-46 he was a graduate student in sociology at Cornell University.

Following seminary, he has spent his entire life in the pastoral ministry, serving churches in the Town and Country, or related to an agricultural community. He has served Baptist churches, a Baptist-Christian Federation, a Baptist-Presbyterian Federation, a Community Church affiliated with the United Church of Christ, a Presbyterian National Missions field, and now the First Presbyterian Church of Canisteo, New York. His pastorates have been in Ohio, New York, Kansas, and Arizona. In 1950 he was awarded the Rosa O. Hall Honor Certificate for Distinguished Service in Town and Country by the American Baptist Convention.

His family consists of his wife Marjorie and three children... Ruthe, who is employed in New York City; Fay, a seventeen-year-old son in high school in Canisteo, and Ralph, an eight-year-old in the Canisteo Elementary School. *American Agriculturist, March, 1965*

Make Hay Fast... Ford **Quality** HAY MAKERS



TRACTORS
PRODUCTS OF **Ford** MOTOR COMPANY
EQUIPMENT

Sure weather-beaters: Ford 530 baler and New-Size Ford 4000 tractor



Cut and condition fast. Ford 515 mower with rugged, vibration-free drive cuts up to 7 acres per hour. Easy-to-hitch 510 hay conditioner offers a choice of crusher or crimper rolls.



Rake clean and fast with Ford 503 mounted PTO rake. Exclusive rotary stripper action saves leaves, makes fluffy, quick-curing windrows. For ground-drive raking, see the Ford 508.



Chop haylage, green feed or row crops with the amazing Ford 612 forage harvester. Converts in minutes to every chopping job. Gives both economy and capacity.

Capacity . . . up to 14 tons per hour—that's the hay-saving difference in Ford 530 baler performance. It starts with extra pickup width to gather in wide windrows, with cleaner work from 48 crop-saving curved teeth, with positive delivery from spring-loaded hay hold-down.

Then, big-capacity feeding keeps hay moving. Dual forks, timed for non-stop feeding, keep bale chamber uniformly full. Plunger speed at 79 strokes per minute delivers firm, square bales sliced with loaf-like uniformity.

The Ford 530 baler is quality-built at every point to match its capacity. Strong frame and axle, sturdy bale chamber, heavy-duty gears and drives give the 530 its sure dependability. **Three** drive-line clutches protect both baler and tractor, give you keep-going performance for big tonnage. No time lost replacing shear pins. The 530 has none, needs none.

News of top-notch performance spreads fast. No wonder more farmers than ever bought Ford balers last year! See the Ford 530 now, before spring rush starts. Order it equipped the way you want it: twine or wire tie; engine or PTO drive; bale thrower or loading chute. This year get your hay under cover fast. Go Ford all the way.

FREE, with the purchase of any new Ford baler, ENOUGH TWINE (or wire) TO TIE YOUR FIRST 2500 BALES. ACT NOW, before offer closes May 31, 1965.



FORD



Here, from the firing line of dairying, are comments by farmers about purebred and grade cattle.

Young Dairyman

As a young man just starting in the dairy business, it is my opinion that purebred cattle are superior to grade cattle. Whether it be livestock or farm machinery, you get "what you pay for." At least with purebred cattle you know what their bloodlines are, and just what you can expect from each cow productionwise.

Since you cannot be sure of the bloodlines of grade cattle, a farmer takes a much greater risk in raising grade animals for replacements. Even though the average purebred cow exceeds the average grade cow in milk production by only \$40 annually, this means that an average-size herd of 40 milkers would net a farmer an additional \$1600 annually. In my opinion this is well worth paying a little more for quality. — *Albert D. Stanfield, Needham, Mass.*

Concrete Answer

I have often searched for a real concrete answer to why I favor purebred dairy cattle over grades. True, the purebred produces more milk, but there is always someone who says, "I have grades who give 20,000 pounds, and you have purebreds giving 12,000 pounds."

We can always argue that purebreds sell for more . . . but what service are we performing if we are merely inflating the cost of production, in an industry where the costs are already too high?

In my mind the entire problem can be resolved by answering the question, "Do purebred breeders actually deserve the added dividends they receive for selling cattle with registration papers?" I have answered the question with a firm and irrevocable "Yes."

Only seven percent of our dairy cattle population is registered, and it is this seven percent who take the responsibility for the other ninety-

three percent. A breeder does not get paid for "a piece of paper;" he gets paid for the generations of planning and blending of blood which it takes to create the animal represented by that piece of paper. The Honorable Harry W. Hays, Minister of Agriculture in Canada, has so ably stated it in saying, "A breeder is an artist in flesh and blood."

Only seven percent of our cattle are registered, but forty-one percent are bred artificially, and countless other grade herds are headed by purebred sires. The grade dairyman has for generations taken advantage of purebred sires and has improved his herd to the degree that his herd is a real competitor to the registered herd. Only by the purebred breeders continually moving forward will all dairymen benefit. The rewards are great for those who will assume the leadership. — *Peter DeBlock, Jr., New Hampton, N. Y.*

More Selective

I think the industry needs the purebred cattle business to continue to make progress, but they need to take a lesson from the grade men. The grade dairymen to a great extent raise their replace-

ments from only the top half of the herd, while the purebred farmer feels that he has to raise all calves.

Many farmers who have both, say they have grades out-producing the purebreds. Unless the farmers are more selective in raising purebred calves, the grade cattle will overtake them. — *Charles L. Haight, Dundee, N.Y.*

Personal Satisfaction

After nearly sixty years of owning and handling registered Holsteins, I find much satisfaction in telling a visitor, "They are all registered, all home-bred, and all trace through the lower line of the pedigree to a heifer calf I bought in 1912." But I must add that the cash return is not much greater than that to be made with an equally-good grade dairy!

Artificial insemination has been available for twenty years for use in both grade and purebred dairies, whereas the grade dairyman seldom bought the really top-quality bulls for use on his dairy alone. During this period, the production gap between the two groups has closed from more than four thousand difference to less than one thousand pounds of milk on the average. At the same time, AI has eliminated the item of

scarcity that made the offspring of the top bulls very high-priced. Few bulls used entirely in natural service had more than one hundred tested daughters; now in some instances AI numbers them in the thousands.

Better feeding, better sanitation and housing are equally available for both grade and purebred dairies and recent developments in production-testing tend to make the grade and purebred records equal. Advanced Registry has priced itself beyond the reach of the small dairy. The sale of purebred cattle at auction seems to be undergoing a similar shaking-up, so that a nice animal must have an impressive show record or be classified in the high bracket to get much consideration.

If I were starting again would I have a purebred dairy? I believe I would, even if the margin of profit were not greatly above the grades. — *J. Howard Sheppard, Heuvelton, N.Y.*

College Educations

We like purebred cattle because:

More money for breeding stock.

With proper study of breeding and culling we have better type.

There is a correlation between type and production.

We started our herd in 1949 with both purebreds and grades. The second year we sold all grades and have been 100 percent registered ever since.

We purchased a registered bull calf in 1952 from one of the top purebred herds, and started DHIR testing. At five years of age this bull had a proof on 10 daughters as follows: 10,523 milk, 566 fat, type 84.5. We sold him to an artificial breeding co-op.

The children — 2 boys and 1 girl — started showing in 4-H and State parish shows in 1950. They had a lot to learn. We had a family discussion and decided they would not be able to go to college on our milk checks. It was decided that with proper planning and a lot of hard work it could be done with premium money.

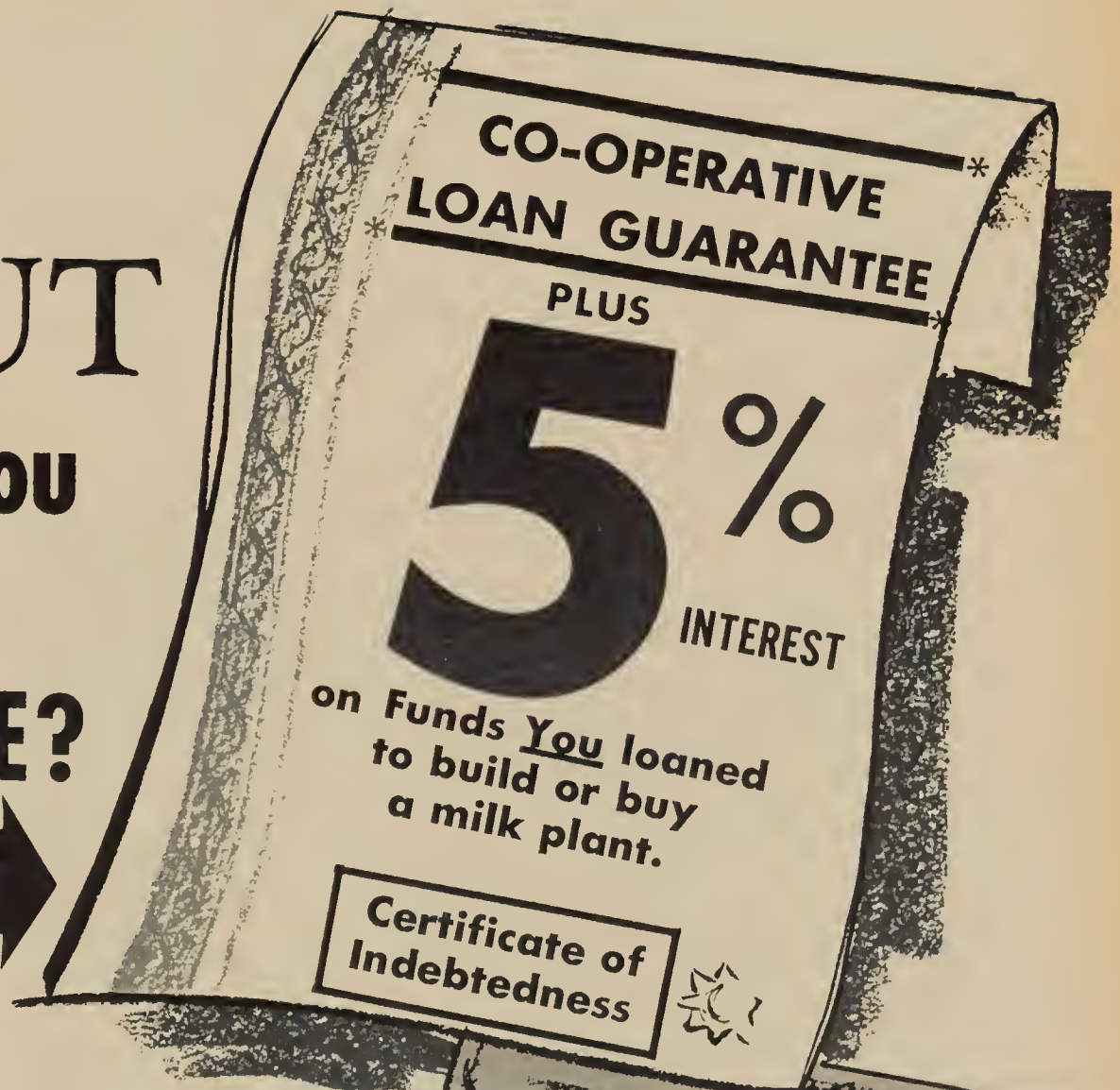
To date, daughter graduated in 1962 from the University of Vermont in home economics. One son is now a senior at U.V.M. in agriculture; the other son is now in 2nd year of high school. All expenses at college have been paid for out of a separate bank account, premium money from fair circuit only — and there will be enough when our youngest son is ready for college.

In 1958 we were awarded the Efficient Production Award for Vermont by The American Dairy Product Corporation . . . herd average 10,253 pounds milk, 523 fat. We have a cow just finished a 305C-2X lactation, as a 5-year-old, with 16,810 milk, 961 fat, 1,263 lbs. solids and \$636. P.D.F.C. We bred and raised her sire, a state champion in both milk and fat for 1964. We never could have done this with grades. — *B. W. Stryker, East Corinth, Vt.*

American Agriculturist, March, 1965



**BUT
Do You
Have
THESE?**



**IF NOT—Remember:
YOU DO NOT HAVE TO SETTLE FOR LESS!**

Just about every co-op collects dues of 1¢ or 2¢ per hundredweight, and if the co-op is doing its job, that's a bargain.

And many co-ops need additional funds to build or buy marketing facilities. They're smart. The future will go to the organizations that have something going for them other than promises and loads of publicity clippings.

BUT

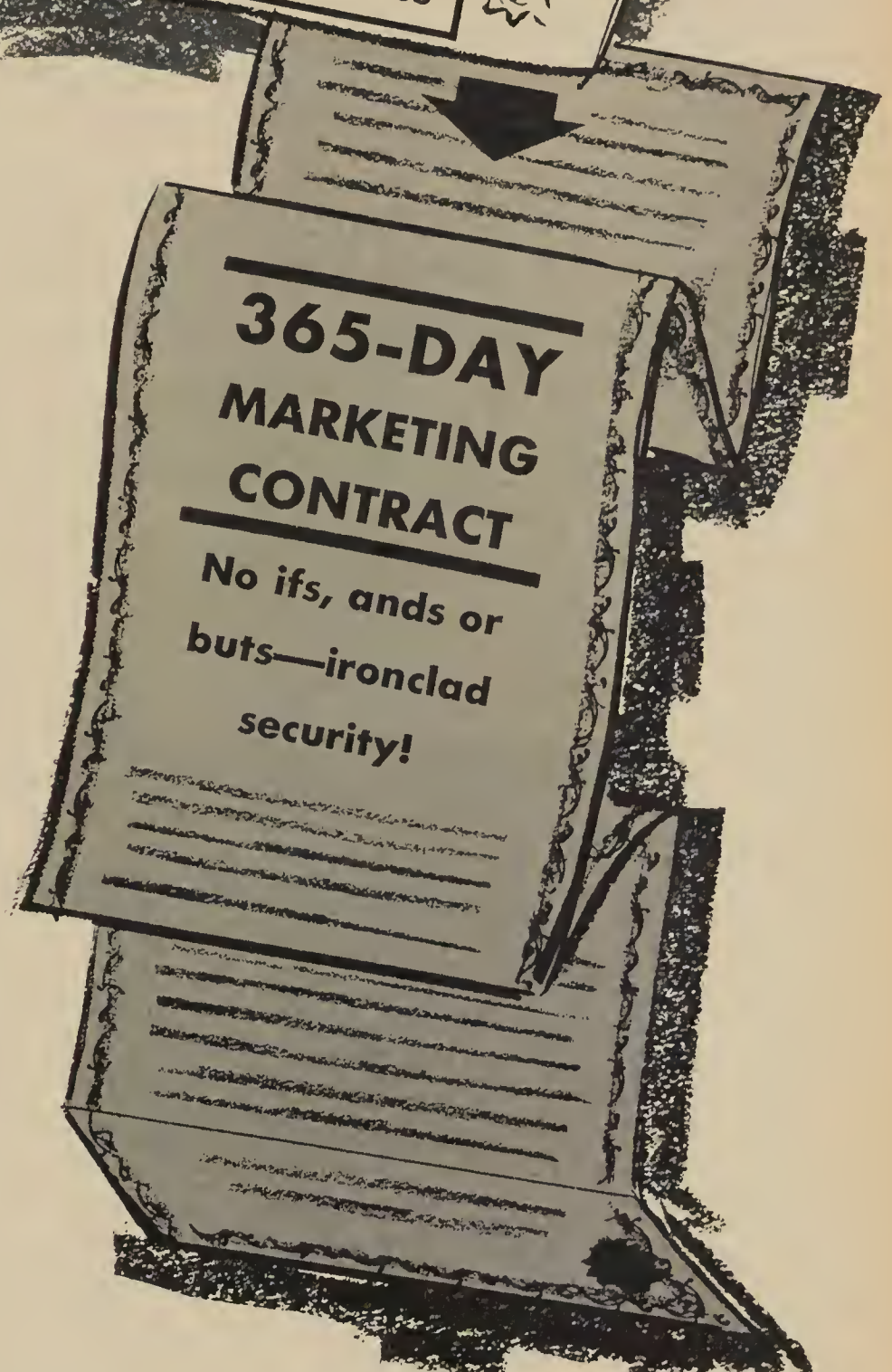
Business is business. And these plant-building (capital) funds are an investment. If your co-op or federation of co-ops is using your money wisely, it will expect certain returns and good growth in value.

SO

You should get your money back! It is as simple as that.

YOUR CAPITAL INVESTMENT SHOULD HAVE A GUARANTEED, LEGALLY BINDING REPAYMENT DATE, and if the enterprise is a really solid one, you should RECEIVE INTEREST FOR EACH YEAR THE CAPITAL LOAN REMAINS UNPAID.

The Dairymen's League for 44 years has repaid its members for capital loans—AND PAID INTEREST. We've never missed a year!



**WHY SHOULD YOU
SETTLE FOR LESS?**



THE DAIRYMEN'S LEAGUE
COOPERATIVE ASSOCIATION, INC.

PROVED SAVINGS...



Republic Rigid-Rib Sheets shown are 28 feet long.

\$63.30 per 1,000 square feet of roof with Republic RIGID-RIB* Galvanized Steel Roofing

King-size Republic Rigid-Rib Galvanized Steel Roofing Sheets made this impressive savings possible on the beef-building shown above.

Extra length allowed the owner to use only 32 sheets of Republic Rigid-Rib to cover the whole roof from ridgepole to eaves. Ordinary roofing would have required 120 sheets. This eliminated waste from cutoff ends. Also eliminated 80 time-consuming end laps. And reduced by 88 the number of separate sheets to be handled.

Extra width of Republic Rigid-Rib cut the side laps to 31, instead of the 39 that ordinary roofing sheets would have required. Labor cost was reduced by 20%.

Extra strength of Republic Rigid-Rib allowed the owner to safely widen his wood purlin spacing to 30-inch centers instead of the customary 18 inches. This saved lumber and labor. But in no way affected the roof's sturdiness and wind strength. Flat-top corrugations of Republic Rigid-Rib react like strong bridge channels to snow load and high winds.

Extra dry Republic Rigid-Rib has a unique out-seam drain which runs-off any windblown rain before it can reach the protected nailing line.

Your local Republic Steel Farm Products dealer has ample stocks of Republic Rigid-Rib Galvanized Steel Roofing available for your pickup or his prompt delivery.

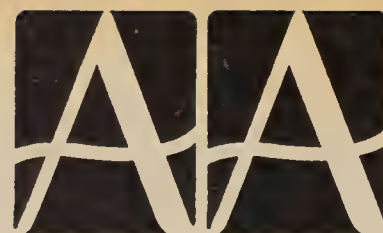
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OTHER REPUBLIC PRODUCTS FOR PROFITABLE FARMING: RIGID-ROOFING FOR ALL STORAGE AND SHELTER  NAILS AND STAPLES  BOLTS AND NUTS  PRECISION WOUND® BALER WIRE  BARBED WIRE  RIGID-FLOOR* 



FARM DOLLAR GUIDE

FEDERAL BUDGET as adopted will contain cuts for agriculture. Exceptions probably will be rural area development, Farmers Home Administration, and marketing activities. There's considerable speculation that price supports will be lowered gradually over period of years, and that direct payments to farmers will be increased, with attempts to channel more money to small farmers, less to large units. One idea is that farmers should pay for some technical advice from Soil Conservation Service.

IF CRIBBED CORN is moldy in the spring, it's likely that crib was too wide to permit adequate air circulation, or corn was too immature when put in crib. Some dairymen are avoiding the problem by putting ear corn or shelled corn in the silo and feeding it as high-moisture concentrate.

FARM EXPORTS of \$6.2 billion set new record in 1964. Previous record was \$5.6 billion in '63. Most of increase was sold for U.S. currency rather than foreign. Government-financed programs (subsidized and donations) accounted for \$1.6 billion of farm exports. Plans to increase farm exports include more subsidies to bring prices to levels competitive with other countries.

A GOOD RESOLUTION to observe throughout 1965 is to spend some time keeping the farmstead clean and attractive. Naturally, it's not wise to use expensive equipment to mow weeds when you don't know what they are hiding ... but it takes only a few minutes to cart away the trash early in the spring.

THE "CRYSTAL GAZERS" are predicting that one million farmers will produce American food by 1980. In the meantime, many medium-size farms will stay in business. Some will survive by extra good management, some because the farm has no mortgage, some by developing sidelines on or off the farm.

ESTIMATED UNIFORM MILK PRICES in the New York-New Jersey milkshed for the next few months, according to Acting Administrator Pollard, are as follows: March, \$4.13, up 3 cents; April, \$3.88, up 2 cents; May, \$3.68, up 6 cents; June, \$3.69, up 3 cents. If the estimate proves to be correct, the average uniform price for milk for the first six months will be up 2 cents from last year.

It is also estimated that volume of pooled milk for the first six months will be 1 percent higher than last year.

CHECK YOUR HAY SUPPLY! If it looks too small to carry the cows to pasture, consider feeding less hay per cow per day rather than buying hay, which is scarce and much of it poor quality. Cows will need more grain, but total feed costs may actually prove to be lower and production higher than if you buy hay. Tests have shown that cows do well on as little as 5 to 8 pounds of hay per day, but 10 to 12 is better.

FARMERS INDICATE INTENTION to raise more heifer calves. Difference in price between a dairy cow for beef and a top-quality dairy replacement is as much as \$150 to \$200, compared to spread of \$50 to \$100 a few years ago.

WINTER'S SERIOUS STORM in the Mohawk Valley, bringing electric power failure, stressed importance of emergency equipment for farms. Cornell bulletin "Emergency Equipment for Electric Power Failures" is valuable source of information.

CHALLENGE YOUR COWS to produce to their full potential. Start lead feeding two weeks before calving (at least one pound per day per 100 pounds of body weight). After calving, increase the grain as long as the cow's appetite is good, and as long as she increases production. Following peak production, reduce grain as production decreases. Briefly, it pays many dairymen to feed more grain in first half of lactation, less in last half.

It's difficult to overfeed high-producing cows in the early stages of lactation. Ways to encourage more nutrient intake include: (1) Feeding grain three or four times a day; (2) start lead feeding at least two weeks before calving; (3) try feeding pellets; (4) increase palatability with molasses.

YOU MUST keep wage records and pay Social Security tax on an employee if he is paid \$150 or more in cash during the year ... or if he works for you 20 or more days during the year and is paid in cash.

"PARITY PRICE" concept is outdated. Reason: mechanization and improved methods have increased production per man to the point where return per man employed is more important than price per bushel, hundredweight, or ton.

American Agriculturist, March, 1965



**Announcing new Alfatox.
It's the nearest thing yet to a "perfect"
alfalfa insecticide. Here's why:**

New Alfatox* is the nearest thing yet to a "perfect" alfalfa insecticide because it controls weevils and practically every other insect known to attack alfalfa. And new Alfatox won't give you milk or meat residue problems if you wait just seven days after spraying before feeding treated alfalfa or clover to livestock.

You can spray new Alfatox and be sure of dependable control of alfalfa weevils, even strains which have developed resistance to other insecticides. This is especially important because resistance to other insecticides is spreading and there's a good chance you'll be faced with hard-to-kill weevils this year.

You can also depend on new Alfatox for unbeatable control of aphids, spittlebugs, leafhoppers, grasshoppers . . . and just about every other insect threat to alfalfa. One insecticide, that's all, and you've solved your alfalfa insect problems.

Remember, you can avoid a residue problem in milk or meat by using Alfatox. Just wait seven days after spraying before you graze livestock or cut treated alfalfa for green chop or hay.

So keep close check on alfalfa weevils during the larval stage, when they are most destructive. Spray Alfatox before the first cutting, when $\frac{1}{3}$ to $\frac{1}{2}$ of the plants show some damage.

If reinfestation occurs after the first cutting, spray Alfatox directly on the stubble. This will usually prevent damage from weevils and other insects up to the time you make your second cutting.

That's what makes Alfatox the "near-perfect" insecticide. Control of practically every insect that attacks alfalfa, including resistant strains, and no milk or meat residue problems. No protective clothing or devices needed when you apply Alfatox.

Ask your supplier about new Alfatox or write us for full information.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

*Alfatox is a trademark of Geigy Chemical Corporation.

Geigy
CREATORS OF CHEMICALS FOR MODERN AGRICULTURE
Alfatox

What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accom- panied by widespread damage.	

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Jamestown	WJTN	1240 kc.
Auburn	WMBO	1340 kc.	Niagara Falls	WHLD	1270 kc.
Binghamton	WKOP	1290 kc.	Olean	WHDL	1450 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Sayre, Pa.	WATS	960 kc.
Elmira	WELM	1410 kc.	Schenectady	WGY	810 kc.
Glens Falls	WSET	1410 kc.	Syracuse	WOLF	1490 kc.
Gloversville	WENT	1340 kc.	Walton	WDLA	1270 kc.
Hornell	WWHG	1320 kc.	Utica	WBVM	1550 kc.
Ithaca	WTKO	1470 kc.			

Northeast Radio Network
Ithaca, New York

MERGERS EVERYWHERE

by Ronald Graham

Farm and Business Editor, Post-Standard, Syracuse, New York

THE MERGER of Metropolitan Cooperative Milk Producers Bargaining Agency, Inc., and Mutual Federation of Independent Cooperatives, Inc., both of Syracuse, New York, into the Northeast Dairy Cooperative Federation was inevitable. The reasons for it were similar in nature to those which resulted in the merger of the American Agriculturist and The Rural New Yorker, and the merger of Cooperative Grange League Federation (GLF) with Eastern States Farmers Exchange and Pennsylvania Farm Bureau Cooperative Association . . . under the name Agway.

Decreasing Numbers

The number of dairymen and farmers of all types are decreasing at the same time their individual importance increases. Serving these farmers, whether with a magazine, a feed and machinery store, or as a milk bargaining cooperative, is much different now than it was even ten years ago.

Principal reason for the merger of Metropolitan and Mutual was to make a better bargaining position for the prices of milk and milk products. The voice of 12,700 dairymen is much stronger than the squeaky noises of two organizations . . . two organizations competing against each other . . . one of 6,900 members and the other with 5,800 members. This stronger voice will have greater impact, not only at the bargaining table, but also at Washington and Albany.

The rush of events in agriculture demanded the merger of the organizations' milk manufacturing plants at Oneida and Fort Plain, New York, and the meshing of the brains of the two co-ops to meet the challenges of the future. The merged concern will have control, in varying degrees, of 11 billion pounds of milk, which in 1965 will be sold in the New York-New Jersey Federal Milk Marketing Order 2 area. When the new co-operative gets its wheels rolling, it will be producing butter, milk powder, packaged fluid milk, sterile milk, condensed milk, and cream for American and world markets.

Merger talks between Mutual and Metropolitan actually started in May of 1963, when the leaders of the two co-ops . . . technically they are federated cooperatives because they are made up of 84 such groups . . . realized that the signs of the times pointed in that direction. Then, in the spring of 1964, Mutual's Board of Directors met at Hotel Syracuse and adopted an "umbrella" plan of merger. Metropolitan's House of Delegates, meeting at Fort Plain shortly after, on April 22, 1964, adopted

(Continued on page 48)

A COMPLETE BARN CLEAN-UP IN MINUTES?

No sooner said than done—with a Cornell Barn Cleaner. A typical user reports 16 minutes to clean-up for 37 cows . . . twice daily in fall and winter, once a day in pasturing season. Still going strong after 12 years! Expect these time- and cost-saving advantages when you install a Cornell:



- **Round-Oval Link Design** — sheds corrosive matter, minimizes chain jamming, wear and breakage!
- **Double - Tooth Drive Sprocket** — reduces link wear, increases chain life!
- **Full 2" High Paddle**—maximum cleaning capacity with minimum manure pile-up. Exclusive "wearshoe" construction gives added years of paddle life!
- **Fully Automatic Operation** —power-saving chain drive!

Install a Cornell barn cleaner . . . or convert your present installation. Write for complete data today.

Please send me data on ☐ Cornell Barn Cleaner ☐ Cornell Conversion Kit ☐ Vandale Silo Unloaders.

I am a ☐ farmer ☐ student.

Name_____

Address_____

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Also distributors of
Vandale Silo Unloaders.



CORNELL
MANUFACTURING COMPANY
Dept. C • Laceyville, Pennsylvania

American Agriculturist, March, 1965

IT'S HERE!
FROM ALLIS-CHALMERS
NEW ONE-NINETY
XT

“Wait till you see what we’ve done for 5-bottom farming”



FOR THE FIRST TIME IN FARM TRACTOR HISTORY...

**“Right here
is the answer to
giving a man
his choice—where he
wants it most!”**

You'd expect Allis-Chalmers to be the one to take the lead with an idea like this—the idea that a farmer deserves at least as much freedom of choice when he invests in a new tractor as when he buys a car. That's why now, for the first time in farm tractor history, *one great 5-plow tractor offers you 5 engine options!*

You know that often as not a 5-bottom tractor will handle six or seven some places—and five will pull tough in others. So—guided solely by what you *want and need* for your own 5-bottom work, you may choose the powerful, responsive performance of the One-Ninety. Or, if your special conditions call for, say 15 or 20 more horses, the new power-packed XTs are for you. The choice is *yours*.

Which one of the One-Nineties do you want? No matter which you buy, you'll have the most exciting tractor to come on the farm scene in a generation. On the next page is a partial rundown of some of the across-the-board advantages . . .

BHL



Blank Page Digitally Inserted

Pick the One-Ninety you want. Any one of the five gives you things you'll find nowhere else!

Here are just a few of the exceptional good things that come with any one of the Allis-Chalmers tractors in the One-Ninety line: Start with (1) that roomy platform, a full yard in either direction. See that 12-position contour seat, (2) just one of three styles, and (3) power steering plus an adjustable steering wheel that allows the driver to sit or stand. Your console control (4) where your right hand drops on it—power director, speed control, hydraulic controls, Traction Booster, and position control levers—all in a group where you don't have to reach. Look down that low-sloped engine hood (5)

and see closer in front than you ever did before on a tractor this big. Notice the big air scoop ahead of the wheels for cleaner air. Now have a look at (6) the full-skirted fenders that protect without hiding the wheels. All four wheels are adjustable for tread width to suit the row and the crop. Turn around and see your huge, 48-gallon day-long fuel tank (7)—no delays to refuel. There are three separate hydraulic circuits (8) for instant response regardless of engine



speed. And (9) your choice of the easiest 3-point hitch you've ever seen, or Allis-Chalmers Snap-Coupler.

You've just made a fast tour of a tractor built to go!

We could go on and on—but isn't there someone not too far from you who can show you the One-Ninety and One-Ninety XT . . . someone who gets just as excited

talking about these goin' 5-bottom tractors as we do? Sure there is! And he's just the man who can help you pick the power, pick the fuel and pick the engine that's best for the work *you* do. He's your Allis-Chalmers dealer.

ALLIS-CHALMERS • THE TRACTOR PEOPLE • MILWAUKEE, WISCONSIN





NEW BASE FOR FARM WAGES

by Amos Kirby
New Jersey Editor

Wages — New Jersey fruit and vegetable growers who use Puerto Rican migrant workers have a new boss on the farm . . . no other than Willard B. Wirtz, the U.S. Secretary of Labor. In dealing with the Mexican braceros, the Department of Labor has established a base for farm wages for all areas of the United States. For New Jersey the base is \$1.30 an hour, a 30 percent increase over what was paid in 1964.

I discussed the Puerto Rican situation with Carleton Heritage, president of the New Jersey Farm Bureau, and also president of the Garden State Service Cooperative Association. Mr. Heritage informs me that Garden State has an agreement with the Puerto Rican government for \$1.00 an hour for 1965. This may be idle thinking in view of the position of Labor Boss Wirtz, who has urged Florida growers to pay the \$1.30 an hour. Potatoes — I had lunch with Jay Garrison, Elmer, and asked if the booming prices on white potatoes would lead to an increase in plantings. Mr. Garrison quoted Lester Roork, a well-known dealer, who claims that while there has been more interest in potatoes in recent weeks, with the price of seed . . . and the prospect of an over-planting in areas to the South . . . there will actually be little or no increase. In recent years, growing potatoes in New Jersey has been confined to operators who have the land, the finances, and the markets to ride through depressions as well as prosperous years.

George Coombs, also of Elmer, has added another year to his experience of growing potatoes under contract. He likes this system; knows what he is going to receive for his crop before it is planted.

Tomatoes — There is no subject in New Jersey that creates as much concern, discussion, and at times differences of opinion as the price for tomatoes grown under contract with processors. As this is being written, the indications are that contract prices for 1965 will be somewhat higher than in recent years.

Tomato Yields — New Jersey has a new champion tomato grower, Donald C. Garrison, Elmer, Salem County. In spite of one of the worst droughts in years, Donald produced 35.52 tons of tomatoes per acre, the highest in the State.

Interestingly, his father, Clyde Garrison, was third in the 20-ton Club with an average yield of 31.87 tons per acre. And another coincidence is that in 1962 the elder Garrison was the State champion with a yield of 38.05 tons per acre, the highest measured and official yield ever grown in New Jersey.

Emidio DeSilvio — New Jersey's

most consistent big yield producer is Emidio DeSilvio, Cedar Brook, second with 33.06 tons. He has quite a record . . . was top grower in 1959, 1960 and 1961, and placed third in 1963.

Asparagus — The future for New Jersey's "sick" asparagus industry appears to be a bit brighter. Low yields and low prices have discouraged growers, many of whom are of the opinion that it has seen its day. Some are ready to quit . . . but what else can one grow?

However, those who attended the asparagus sessions of the New Jersey State Horticultural Society's annual meeting were given some encouraging predictions:

Dr. Howard Ellison, College of Agriculture specialist on asparagus, has come up with selected asparagus seed that holds great promise of strains of greater productivity. Dr. Ellison, the New Jersey Asparagus Council, and others have selected plants from many acres, then had them moved to a new field, where the blossoms were pollinated by strong and productive males.

This seed is now available in limited amounts. Plants will be available in 1966, and within a few years (with proper field practices) yields should start climbing towards 4,000 pounds per acre. They are doing it in Michigan . . . so why not in New Jersey and other states where yields have been declining?

Harvester — Down in Cumberland County an asparagus grower has a unique home-made contraption that is worth copying by other growers if they are looking for a way to reduce harvesting costs.

The low-wheeled machine is owned and operated by Jean Erbaugh, Greenwich. It is drawn by a tractor, and moving at a rate of three miles per hour three men sitting on the machine can cut the spears and place them in boxes as the machine moves across the field. Mr. Erbaugh claims that it has enabled him to reduce his harvesting costs by one-third.

Here and There

Cited by the New Jersey State Board of Agriculture for "distinguished service to New Jersey Agriculture" were: Stanley Coville, veteran blueberry grower and marketer; Clarence B. Davenport, whose ability to inspire students is well known in Burlington County; Charles E. Maier, successful vegetable grower, farm leader, and able citizen in his home county of Morris; and Charles H. Nissley, Extension teacher, a pioneer in the control of insects and diseases on vegetable crops.

When writing to advertisers be sure to mention **AMERICAN AGRICULTURIST**.



KNEE-HI Closure Boots in Rubber \$7.95 Neoprene \$11.25



HI-TOP WORK RUBBERS in Rubber \$3.99 Neoprene \$5.65



10 INCH CLOSURE BOOTS in Rubber \$5.99 Neoprene \$9.35

We quote Editor Carroll Mitchell in the November, National Hog Farmer:

"If the record wasn't clear how disease can be carried from farm to farm, it would be easier to comprehend what some hog farmers do to their neighbors.

"If the cost of overshoes or rubbers was prohibitive, it would be easier to understand why some blithely wear the same footwear directly from their own lots to others.

"Don't permit any visitor, wearing chore overshoes, to enter your lots, even if he is a good friend."

Tingley Boots and Rubbers are unlined and may be easily washed and disinfected inside and out. Dry quickly. They're inexpensive and lightweight, but — they're tough and rugged. Stretch on easily — won't pull off accidentally.

AT MOST FARM SUPPLY STORES, SHOE STORES AND DEPARTMENTS

TINGLEY
RUBBER CORPORATION
222 South Ave., So. Plainfield, N.J.

Burial Insurance Sold by Mail

. . . You may be qualified for \$1,000 life insurance . . . so you will not burden your loved ones with funeral and other expenses. This NEW policy is especially helpful to those between 40 and 90. No medical examination necessary. OLD LINE LEGAL RESERVE LIFE INSURANCE.



. . . No agent will call on you. Free information, no obligation. Tear out this ad right now.

. . . Send your name, address and year of birth to: Central Security Life Insurance Co., Dept. E-8169, 1418 West Rosedale, Fort Worth 4, Texas.

Here's The Way To Curb A Rupture

Successful Truss That Anyone Can Use on Any Reducible Rupture, Large or Small

If you must wear a Truss for Rupture, don't miss this. A Post Card, with name and address, will get you FREE, and without obligation, the complete, modernized Collings Plan of Reducible Rupture Control. Now in daily use by thousands who say they never dreamed possible such secure, dependable and comfortable rupture protection. Safely blocks rupture opening, prevents escape, without need of harsh, gouging pad pressure. Regardless of how long ruptured, size, occupation, or trusses you have worn. TRY THIS, and send your Post Card today to Capt. W. A. Collings, Inc., 5 Bond St. Adams, N. Y. Dept. 726B

ROLL-ALL



Eliminates
STONE DAMAGE

Fields rolled early in the spring with a Roll-All are smooth and trouble-free for faster operation of hay machines. No ruts, clods, heaved roots or stones to dull or break knives. Roll winter wheat for better seedings.

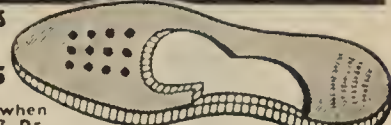
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Try Dr. BARRON'S New FOOT CUSHIONS



Do your feet hurt when you walk or stand? Dr. Barron's NEW FOOT CUSHIONS give blessed relief! Take painful pressure off CALLUSES, CORNS, SORE HEELS, ACHING ARCHES, CUSHION and relieve soles of your feet — help support WEAK ARCHES, absorb foot shocks. Light, spongy, ventilated — like walking on pillows! Wear in any shoes. Dr. Barron says: "Relieves tired, aching feet from HEEL TO TOES." SEND NO MONEY! Pay postman \$2.25 for PAIR plus postage (or send \$2.25, we pay postage). STATE SHOE SIZE AND IF MAN OR WOMAN. 30-DAY TRIAL GUARANTEE. Money back if no blessed relief! FREE — Dr. Barron's "FOOT HEALTH ADVICE" sent with order, to help keep your feet healthy. Beware of imitations! Order GENUINE Dr. Barron's Foot Cushions. Manufactured and sold only by: ORTHO, Inc., Dept. 370, 129 B'way, Lynbrook, N. Y.

COWPOX* — RINGWORM

Teat Sores, Skin Abrasions PAINT IT ON or SPRAY IT ON
* Blu-Kote dries up cowpox lesions, controls secondary infection. Germicidal. Fungicidal, penetrating wound dressing. Now in new 6 oz. Spray Bomb (\$1.30) or in regular 4 oz. dauber bottle (\$1.00), at dealers or postpaid.
H. W. NAYLOR CO., Morris 9, N. Y.

Dr. Naylor's
BLU-KOTE

Clobber alfalfa weevil . . .

(Continued from page 22)

feeding barrier. Early treatment may mean no toxicant is present when it is needed the most.

4. Apply the insecticide in no less than 20 gallons of water per acre at about 35 psi of pressure.

5. Treat, if you cannot harvest, when 50 percent or more of the growing tips show some feeding injury. Not when 50 percent of the plant is destroyed, but when 50 percent of the growing tips show some injury. This will be patchy, use judgment here.

6. Follow these rules for all subsequent cuttings of alfalfa.

7. Do not use any other dosages

or any other materials in New York.

Now some facts and precautions about the recommended insecticides:

Methoxychlor is a safe chlorinated hydrocarbon . . . safe to handle and use. It has a tolerance of 100 parts per million (ppm) on hay. It is a fine spittlebug killer and works well on potato leafhoppers on alfalfa. One must wait 7 days after treating before feeding or cutting.

Malathion is a safe phosphate . . . safe to the applicator and safe to birds, bees, fish and cattle. It has a tolerance of 135 ppm. Hay may be fed the day it is treated.

Diazinon is a relatively safe

compound to the applicator. It has a tolerance of 40 ppm on hay. It has a good dermal or skin toxicity picture, and hence is quite safe to the operator . . . but it is more toxic than malathion or methoxychlor. It may cause some flecking or injury to alfalfa, but in most cases the plants will outgrow this slight injury.

Parathion is a very toxic phosphate to bees, birds, animals, and the user. It must only be applied by a trained operator who must be aware of the dangers to himself and take all necessary precautions.

While parathion has only a tolerance of 1 ppm on hay, it may be fed up to 40 or more ppm to dairy cattle safely and without contami-

nating milk. It is readily broken down in the rumen of cattle and eliminated in the waste products of the animals. Occasionally it may also be toxic to plants, but seldom does it cause excessive injury.

Please Remember

A few general statements about the uses of pesticides on forages cannot be repeated too often. These are:

— Treat only when necessary and profitable to do so.

— Make it your business to know and follow only the prescribed College recommendations. Keep up to date and keep out of trouble.

— Do not overdose, knowingly or carelessly.

— Calibrate your pesticide applicator as to speed and to apply exactly the dosage recommended. Do this often, not once a year. Output will vary with wear of the nozzles and pump.

— Measure out accurately the prescribed dosage of pesticide. Use a measuring cup; never guess.

— Follow exactly all the latest label precautions, especially as to formulation, crops, insect, number of applications and interval between treatment and harvest. This is important. It is unlawful to do otherwise.

— Follow all warnings and precautions on the label for your personal safety, safety to others, and safety to wildlife of all kinds. Beware especially of drift to the property of others or wildlife areas, and contamination of streams while loading your sprayer with water.

— Destroy old bags and containers by burning and burying deeply in areas where wildlife and streams will not be contaminated by run-off. Use good common sense with these poisons.

— In weedy hay fields in bloom, apply pesticides only in the evening or early morning when honey bees are not working. Protect the pollinators by choosing such safe pesticides as methoxychlor and malathion in honey bee areas.

Other Specific Precautions

— Cows fed forages with any residues of DDT, TDE, Perthane, dieldrin, heptachlor, Telodrin, chlordane, endrin, aldrin, toxaphene, BHC, lindane and endosulfan will store these in their body fat, and milking cows will secrete them or their metabolic products in their milk. Young calves and heifers and dry cows will store these in their body fat and secrete them when they freshen months later. Do not feed forages or other feeds knowingly bearing residues of them.

— Never feed sweet corn treated with DDT as fodder or silage. Avoid all apple pomace as cow feed of dairy cattle as it usually has a high residue of DDT or other pesticides, or both.

— Never feed vegetable wastes or graze harvested cabbage or other vegetable fields where any pesticides have been used unless they are known to be at approved and

NOW RAISE GOOD LOOKING GROWTHY CALVES

... AND SAVE TWO WAYS!

This is the new milk replacer calf raisers are talking about. New Wayne CALFNIP . . . improved and **proved** by Wayne Research Center tests . . . to save two ways for you! (1) Costs less and produces a finer calf than ever before, with smoother, glossier hair coat (2) Increases savings over whole milk feeding (costs less than 5c per qt.) Reduces incidence of digestive upsets, too. Here's why new Calfnip does more than ever before for you and your calves—

STEPPED-UP MILK PRODUCTS All milk protein. No cereal filler. Outstanding digestibility.

STEPPED-UP ENERGY Contains 10% high quality animal fat in a dispersible form.

STEPPED-UP FORTIFICATION Contains Vitamins A, B, B¹², K, Thiamine, Niacin and C, plus a new blend of essential **MINERALS**, plus **ANTIBIOTICS** to promote growth and feed efficiency. Contains Methionine, a vital building block of protein.

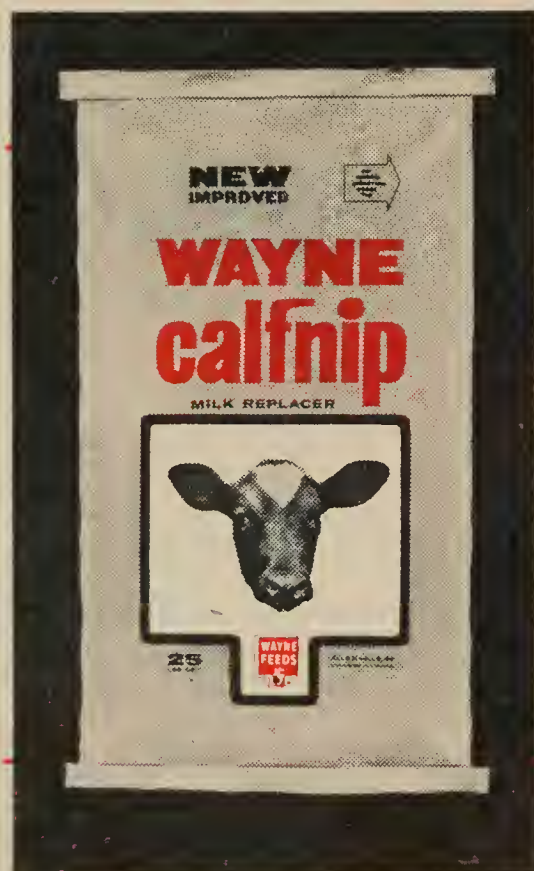
SO EASY TO FEED

New Calfnip mixes easily, **stays** in suspension, feeds smoothly and cleanly through nipple. Ideally suited for pigs and other baby animals. One trial tells the story.

GET ACQUAINTED OFFER!

Specially Designed
CALFNIP MIXER ONLY 15c

Extra long (12") hollow, easily cleaned handle. Unique whipping action. The ultimate in convenience, sanitation, efficiency. Available **ONLY** from Wayne. See offer below.



Send 15c to cover cost of mailing and handling plus sales slip or calf head from Calfnip bag for each mixer to:

ALLIED MILLS, INC., Calfnip Mixer Dept., Fort Wayne 1, Indiana

NAME _____

ADDRESS _____

TOWN _____ STATE _____

Offer good only in U.S. Void where prohibited, taxed or otherwise restricted by law.

ALLIED MILLS, INC. Builders of Tomorrow's Feeds... Today!



(Continued on page 39)

safe pesticide residue levels for forage.

— Do not buy any hay unless you are certain it contains no objectionable or illegal residues. Deal only with reputable hay dealers. — Use extreme care in buying dairy cow replacements. Be certain these do not come from contaminated herds. Know your seller. Ask questions of him. Make him stand behind his sales with a signed statement. An outstanding milk producer with an outstanding pedigree may not be a bargain at any price.

Remember we can grow superior hay and increase yields with insect control. We can do this safely with the materials presently available. We strongly urge you to try them on your own farm. However, it cannot be overemphasized that you must continually be alert to changes in recommendations resulting from additional new studies and better techniques for residue detection. Check frequently with your county agent or State College of Agriculture.

AROUND THE NORTHEAST

University of Connecticut specialists recommend the following alternatives for alfalfa weevil control (all amounts in terms of pounds actual toxicant per acre):

Malathion 1 to 1.25

Methoxychlor 1.5

Diazinon 1 to 1.5

Methoxychlor plus malathion at above rates

Methoxychlor plus diazinon at above rates

New Jersey (Rutgers) and Pennsylvania (Penn State), in addition to materials already mentioned, are recommending Guthion. Since this material has a label for alfalfa weevil control, it is legal for use anywhere in the country, but it is not on the recommended list in Connecticut or New York. The New Jersey recommended rate is one-half pound per acre; special safety precautions are suggested where either Guthion or parathion are to be used.

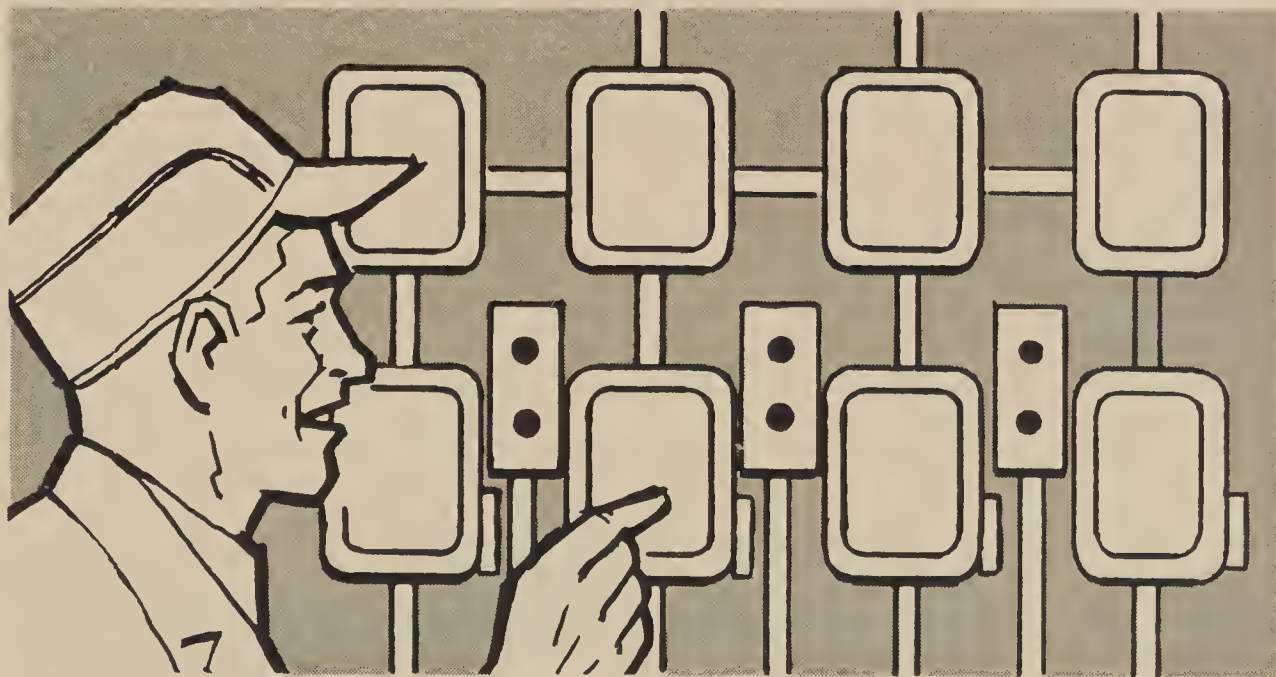
Pennsylvania recommends Guthion at three-fourths pound of actual toxicant per acre (three pints of 25 percent emulsifiable concentrate), whether applied on first cutting or on the stubble following first cutting. Twenty-one days must elapse between application and harvest. With this material, as with others, read the label and follow directions. If in doubt, check with your county agent.

The Asgrow Seed Company is promoting a sorgo-sudangrass hybrid (Asgrow Grazer) because "it does not attract alfalfa weevils which means no problem with insecticide residues." Many other seed companies, including Hoffman Seeds, DeKalb, Northrup King, etc., have developed similar annual forage crops as possibilities for both hay and pasture. None of these annuals presently suffers from the insect damage problem faced by alfalfa in the southern portion of the Northeast.

American Agriculturist, March, 1965

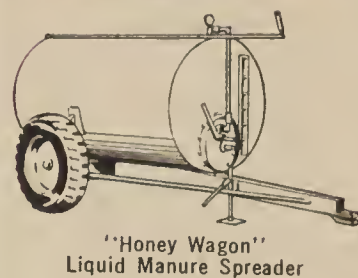
AUTOMATE WITH

Work-saving, time-saving Farmstead Equipment
Systems that make farming more profitable for YOU!



FREE YOURSELF from the time-consuming, hard work of feeding cattle — milking — manure handling; increase herd size, **UP YOUR INCOME** with an Automated Clay System — the most efficient built!

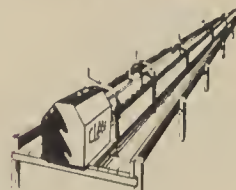
Have your local **CLAY FARMSTEAD EQUIPMENT SPECIALIST** (pictured below) help you plan your system, then you'll be sure it's soundly planned with plenty of room for future expansion and growth. **CLAY EQUIP. CORP., BINGHAMTON, NEW YORK** (The only full line Barn Equipment & Farmstead Mechanization Company with Factory & Warehouse in the East). Home Office & Plant — Cedar Falls, Iowa.



"Honey Wagon"
Liquid Manure Spreader



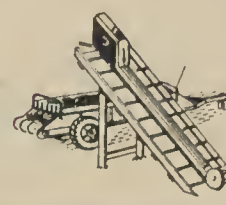
Silo Unloaders



Mechanical Feeders



Milking Parlor Stalls



Barn Cleaners

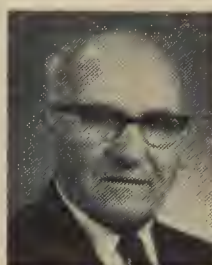
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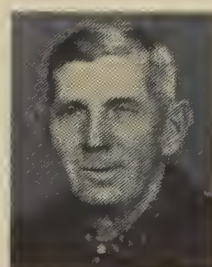
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Herron Farm Supply
BELLEVILLE, N. Y.

Your local Clay Farmstead Equipment Specialist is a good man to know.

Roadside markets

(Continued from page 16)

apples, peaches, prunes, and pears at his roadside market. Sweet corn, tomatoes, squash, and melon acreages were increased to provide a fuller line of home-grown items.

Other Adjustments

Changes in crops were only one of the adjustments the Schwab family made. The next step was the construction of a practical pole-type market with aluminum roof and siding. After trying to operate a few seasons with a hard-to-clean dirt floor, a concrete slab was laid, and overhead doors installed to make possible a longer season for

the sale of fall fruits and cider. In spite of the formidable job of caring for a family of nine fine children, Mrs. Schwab decided to spend more time at the stand last year because of the difficulty of hiring sales help with enough interest to encourage the all-important repeat customer. This made necessary a full-time baby sitter at home.

Another adjustment involved identification and advertising. After considering a few farm names, they settled on the best one, their own family name. Attractive signs a thousand feet away along the highway advise approaching motorists that Schwab Farms is just ahead. Neat signs indicating

current specials are located in front of the newly-painted market nestling between large apple trees loaded with colorful fruit in season.

Mr. and Mrs. Calvin Hall, Warrens Corners, west of Lockport, sell their home-grown apples and grapes in another rather new pole-type market. Mrs. Hall talks over apple pie recipes with her customers, a personalized service that a super market can never supply. She also found that painting the display benches a clean yellow color accented the colors of the fruit. Calvin Hall suggests encasing creosote-treated poles with planed lumber to prevent stains on customers' clothing.

Just west of Hall's on Route 104, is Eleven Oaks Farm, owned by Howard Budd. Mr. Budd could well be called "The Squash King" of Niagara County. From late September into November the majestic oaks along Ridge Road shelter piles of every popular squash variety. The only equipment used include a stepped display rack and sometimes a flatbed trailer holding fruit. On a sunny Sunday afternoon last November up to ten cars stopped in at one time.

John Carlisle of Route 31, Lockport, employs an old democrat wagon, once used by growers to haul all kinds of produce to town, as the identifying insignia at his place of business. The brightly-painted wagon, with his name in large letters on the sideboard, is a landmark in the area. It helps John move his specialties, sweet corn and pumpkins.

While conducting a customer-flow study at the Carl Zehr Market, Route 78, Newfane, I noted that customers seem to arrive in bunches on busy days. When this "bunching" occurs, the universal custom of displaying produce in baskets as a measuring device causes problems in providing quick service. Baskets are too expensive to use as the take-home container for small quantities, so each item is re-packed by hand into bags.

Carl solved this problem by purchasing appropriate sizes of inexpensive polyethylene bags, which are inserted in the traditional basket "measure" before filling. When the sale is made, the plastic bag is simply lifted out of the basket and a "twist-em" fastened around the neck. It takes only a few seconds.

Open-top paper containers with handles (imprinted with the grower's name and address) also help solve the quick service problem. Mrs. Zehr finds that washing the smooth, white Chippewa potato really improves the appearance of this variety, and helps justify asking the full retail value for a better-quality product.

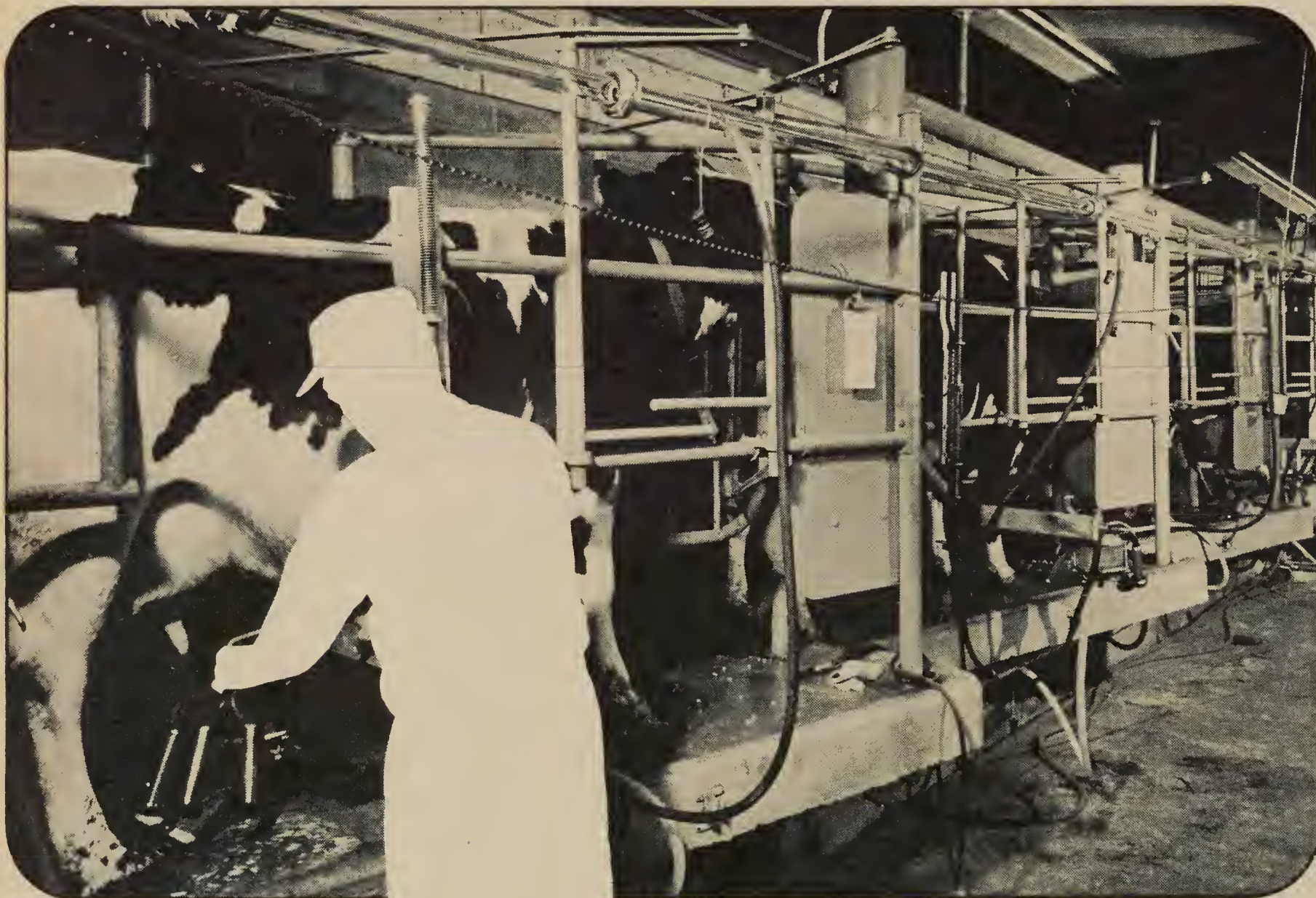
Dairy Store

Felix Lombardi, Lewiston, started selling raw milk retail at his barn more than forty years ago. In 1929 he built a sturdy field-stone milkhous that today serves as a keystone to a much-enlarged modern milk processing and sales structure operated by a son, Sebastian. Being interested in young people, and conscious of the value of good public relations in retailing, Sebastian encourages school teachers to bring their classes out to see how milk is produced. Families are welcome to step into the barn, located only a few feet from the sales room.

This year the Lombardis started buying milk from nearby dairymen to supplement their own production, evidence of a growing demand generated by good customer relations and a good product.

Observations made at the farm market of Erwin T. Campbell,

(Continued on next page)



LET BEACON
HELP YOU
MAKE
MORE
MILK
PER
MAN

Can Beacon Help You?

Here is a fourfold program to help increase your milk production per man:

1. High energy milking rations to sustain maximum production.
2. Free flowing Pel-Ets for bulk, milking parlor and other labor saving installations.
3. Beacon's Roughage Analysis Service and Beacon Dairy Feed Programming to help every cow produce to her full potential.
4. Special feeds for ketosis prevention and control, and other special needs.

Dairy economists tell us 300,000 pounds of milk sold per man should be the **minimum goal** on today's dairy farm. Even 300,000 pounds is conservative for more and more dairymen are exceeding this figure by substantial amounts.

This is good. College studies of commercial dairy farm business records show that a 51% higher milk output per man can bring a **91% increase in labor income for the operator**. This is an encouraging trend in the face of rising land values, equipment costs and wage rates.

More milk per man takes planning, imagination and effort. But it pays off in increased returns for the dairyman.

Start now to increase milk production per man on your farm.



Call your Beacon dealer or Beacon Advisor today.

Beacon Division of **textron**

Headquarters: Cayuga, N. Y.

Lewiston, in a customer study, resulted in a radical rearrangement of the display and service counters. Analysis of the sales from each counter indicated that more interior display area was needed, as well as a more convenient check-out counter.

The "barrier" of displays across the front was converted into aisles leading into the market. Harold Freeman, son-in-law, and production man on the farm, planned a crescent-shaped check-out counter for the center of the sales area. This provides space for several customers to deposit items from nearby self-service displays. Carry-out service is provided for large containers.

Mrs. Freeman grades tree-run peaches into as many as eight grades and sizes of container, from one quart to a half bushel. She finds that the varying tastes, needs, and finances of customers makes this careful grading pay off by finding a home for both economy and fancy-quality fruit.

Construction Problem

Highway construction has caused headaches for some farm markets. John Goodrich, Lake Road, Olcott, encountered a serious problem when Route 18 was rebuilt and widened to within a few feet of his fruit sales barn. John, a former county agricultural agent, found it necessary to eliminate the old barn. He replaced it with a combined packing house and sales area attached to his large fruit storage building.

Although this required a considerable investment, a larger, safer parking area and handier sales room make it all worthwhile. Mrs. Goodrich, chief sales lady, reports that people like to see the actual grading of apples on their modern machine in the sales room. Palletized displays with castors are being built for this coming season.

In Stephentown, Eastern New York, my brother Andrew watched the big earth movers excavate a new roadbed for New York Route 22 to a level six feet below his display porch, leaving no driveway at all in front of the building. The only solution was to "start a second front" by re-locating the display area to the rear, along with a new approach drive, parking area, and landscaping plan. Now that the new highway is complete, sales of sweet corn, strawberries, fresh peas and maple syrup are back near normal. Twin check-out counters speed up service during rush periods.

In the early 1940's, Miles Nichols, Route 104, Lewiston, started selling fruits and vegetables from the tailgate of his truck on week-ends. In the post-war era this evolved into a more permanent wooden frame shelter. When son William returned from Morrisville Agricultural and Technical Institute in 1957, he started to take over more of the marketing phase of their dairy-fruit operation.

By 1962 Bill had completed a new cement block structure with an 800-bushel capacity walk-in cooler and overhead doors. Bill

American Agriculturist, March, 1965

credits the cooler with prolonging the fresh condition of peaches, pears, sweet corn. Display tables at the Nichols market are now equipped with three-inch casters to expedite opening and closing; Bill learned that smaller casters do not function with heavily-laden tables. After a customer study showed that less than 10 percent of his customers looked at displays located around the corner of the building, Bill brought these out of the shadows into the limelight, with excellent results.

Product of Imagination

The new market of Mr. and Mrs. Joshua Tsujimoto, Route 16, Elma, Erie County, is the product

of imagination and industry. The Tsujimotos have been in the business for a number of years, offering a quality line of fresh vegetables, with emphasis on sweet corn.

The new building has a combination of modern and Japanese architecture, providing a home for

No single man makes history. History cannot be seen, just as one cannot see grass growing. — Boris Pasternak

both an air-conditioned vegetable sales area and an Oriental gift shop. The grand opening in October, 1964, attracted hundreds of people from suburban Buffalo.

Josh also believes in selling the

finished product. In 1962 he arranged to have faces painted on pumpkins to eliminate the crude gouging and cutting usually done by the amateur Jack-O-Lantern maker. Sales went up . . . along with the price of painted pumpkins. Josh was invited to tell his story at the Ohio Roadside Marketing Conference at Columbus in November of 1962, and in 1963 he appeared on Rural Review, WBEN-TV, Buffalo, for another report.

The elements of successful roadside market operation are numerous. They must include imagination, careful grading of produce, a desire to provide service . . . and long work days.

Whiter, Safer, More Economical



Lime Crest Barn Calcite

More dairymen use our Barn Calcite because it keeps their floors white and clean-looking so much longer . . . its uniform granules take hold and keep cows on firm footing even in wet weather — that's why we call it **non-skid** . . . it's so economical, so easy to use, and it makes better fertilizer, too.

We're so sure you'll like Lime Crest Barn Calcite, we want you to try an 80 lb. bag at our risk. If you're not entirely satisfied, just send us your receipted sales slip . . . we'll refund the full price you paid!

If Lime Crest Barn Calcite is not available in your area, send us the name of your feed or farm supply dealer . . . we'll make every effort to see that he's supplied.



LIME CREST
BARN CALCITE

LIMESTONE PRODUCTS CORPORATION OF AMERICA, NEWTON, NEW JERSEY

Blueprints of the earth . . .

(Continued from page 18)

Soil survey reports since 1957 contain many new interpretations for the soils mapped in the area. This information varies with the needs of the area, but in most cases includes estimated yields of crops under defined levels of management, land capability interpretations, as well as interpretations relating to uses for rangeland, engineering purposes, community planning, drainage and irrigation, and for recreation and wildlife.

These maps are usually printed on an airphoto base, at a scale of about one to 20,000 — or about three inches to the mile. This pro-

vides a large scale map with a surprising amount of detail, showing every feature normally visible on the ground from an airplane. Individual farms, and even individual fields, can be easily identified.

Copies of these reports are often available free to landowners from the local Soil Conservation Service office, the county agent, or your congressman. For people from outside the area, copies may be obtained from the Information Division, Soil Conservation Service, Washington 25, D. C.

The third real bargain in the map field is the aerial photograph. There are aerial photos for all parts of the Northeast, and they

are more readily available than most people suspect. The easiest source of information is to contact the county SCS office, your District Forester, or your county ASCS office. All of these agencies have index maps for all or part of your area, and generally have order blanks on hand for your convenience as well.

Aerial photos can be purchased in several forms and sizes; none are very expensive. At a scale of one to 20,000 (approximately 9 square miles per photo) they cost \$1.00 per photo; at the very convenient scale of one inch to 660 feet they cost \$2.60 per single photo. If you prefer to deal directly with the source of supply, they can

be ordered from the Eastern Laboratory, Aerial Photography Division, Agricultural Stabilization and Conservation Service, U. S. Department of Agriculture, 45 South French Broad Avenue, Asheville, North Carolina.

You should first ask for an index sheet of your area (price \$1.30). Be sure to indicate the part of the county about which you are interested. Then from the index sheet identify the photographs to be requested and send for them.

Photo Interpretation

Aerial photos can serve as a major tool for planning, as well as a very interesting item for the hobbyist. In case you would like to learn a little about the intricate processes of detection used by professional photo interpreters, there is a handy and inexpensive handbook prepared for the beginner in this field. It is *Interpretation of Aerial Photographs* by T. E. Avery, published by the Burgess Publishing Company, 426 South Sixth Street, Minneapolis, Minnesota. The special stereoscopic glasses necessary for this work are also inexpensive.

The aerial photo, when used with stereo glasses that give a third dimension, combines all the features of the topographic map with many of those found on the soil maps. Everything visible on the face of the earth is usually visible on the aerial photo except for things hidden by dense shadows. People are continuously amazed at the items that can be seen from the aerial photographs, such as the white stripes on highways, woodchuck holes, cows, good hunting locations, and various types of farm machinery in operation!

For farm planning purposes the one inch to 660 ft. is a very useful scale, though a bit expensive. At that scale a square inch is equal to approximately 10 acres, and measurements can simply be multiplied to give acreages.

Other Helps

In addition to these three tools for local study and mapping, there are many maps that are available for larger areas. The most popular among these is the series of quadrangle maps at the scale of 1 to 250,000. Each sheet of this series covers an area of approximately 7,000 square miles. Information included is similar to that available on the regular topographic maps, but of course not nearly as detailed.

This series of maps is often mounted, and frequently one sees them used as wall paper for a hall or one wall of a study. It requires 14 sheets to cover all of New York State, with some overlap into New England and Pennsylvania, and at the low cost of 50 cents a sheet, this makes an interesting and inexpensive conversation piece. Some of the same series are available in three dimensional raised plastic at \$4.50 a sheet. These sheets are available from the U.S. Geological Survey, Washington 25, D. C.

(Continued on next page)



Tiny grubs—big appetites. Green larvae with white stripes grow to a length of $\frac{3}{8}$ "; adult weevil varies from brown to gray with a black stripe, are $\frac{3}{16}$ " long. Adults shred leaf edges on later cuttings, then over-winter and lay eggs early in the spring.



Damage from the weevil. Note the riddled tips and skeletonized alfalfa leaves. The pest often ruins the first cutting. On all chemicals, follow labeling instructions and warnings carefully.

*An important message
from Du Pont about the*

Alfalfa Weevil and what to do about it!

Spray your alfalfa with safety; and without the fear of residues in milk. Play it safe, spray it safe; spray with this combination:

METHOXYCHLOR
plus
MALATHION

Recommended in the northeastern states, these two insecticides are combined in a convenient ready-to-use liquid formulation by:

Agway

In recent years several states have used the 1:250,000 series as a base for new geologic maps. These are valuable assets to the person interested in natural science, high school students, and farmers for background information on the origin of soils and drainage patterns of local areas. They are a little difficult to locate (and the price is not always cheap) but they are a good investment for anyone who has use for them.

The one for New York State, for example, comes in five big sheets and can be purchased by the sheet at \$2.00 a page, or the whole set with supplemental text and key sheets for \$11.00. This map can be ordered from the New York State Department of Education, Albany, N. Y., and is identified as Map and Chart Series No. 5. The office of the State Geologist handles information on these maps in Pennsylvania and Vermont, while in New Jersey they are obtained through the Department of Conservation and Economic Planning, and in New Hampshire from the State Planning and Development Commission.

State Soil Maps

In some states, such as New York and New Hampshire, a generalized soil map for the entire state is available from the Extension Office of the State College of Agriculture. These maps add much interest for the person interested in agriculture and who likes to travel around the state. Differences in the use of the land for agricultural purposes frequently coincide with the major soil changes indicated

on the maps.

In New York State the College of Agriculture has produced a number of county Land Class bulletins and leaflets. These are available for several counties, though some of them are somewhat outdated. Land classification maps identify areas where farms vary substantially in their income-earning capacity. The five major components of land, soil, climate, location, topography and water-handling capacity of the soil are the prime factors considered in producing these maps.

There are many other sources of highly specialized maps of local areas, but they generally require considerable knowledge of specific information before they are of

much use to an individual. The maps discussed in this article provide an inexpensive source of much of the best map material available. Their use by individuals, whether for business or pleasure, often sparks a new interest in maps that turns into a fascinating and rewarding hobby.

I found myself

(Continued from page 20)

er's wife became effervescent bubbles. At last we arrived in Seattle, the city on a sidehill. I was able to give myself to my husband and fellow travelers. I had learned that one cannot give something not yet found. Pitching down one of the perpendicular streets, I

drowned my troubles in the luxuriant seascape.

Then came the return trip. Attempting to walk to the diner, the train whipped left. I spilled bodily into the lap of the gentleman to my left. I picked myself up and paused, the train lurched right. I spilled bodily into the lap of the gentleman to my right. I heard my husband snicker before he said, "All right, fellows; when you get through with her, she still belongs to me."

So it was! I felt no injury to my pride. At last I could laugh.

So, here I am — and once again I can smile as I battle bugs, bad weeds, and backache.

An escapade? It could remove the fetters of your very own farm!

Dates to Remember

12th NATIONAL EGG MONTH

March 1 - Annual meeting United Milk Producers Cooperative Assoc. of New Jersey, Far Hills Inn, near Somerville, NJ.

March 1,2 - Annual Conference for Directors and Managers of the N.Y. Production Credit and Federal Land Bank Associations, Statler Hall, Cornell University, Ithaca, N.Y.

March 5,6 - School for Christmas Tree Growers, Cornell University, Ithaca, N.Y.

March 8-20 - DHIC Supervisor Training School, Cornell University, Ithaca, N.Y.

March 11,12 - National Peach Conference, New Jersey College of Agriculture, Rutgers University, New Brunswick.

March 21 - Cornell Horse Field Day, Ithaca, N.Y.

March 22-24 - 25th annual meeting, American Dairy Association, Pick Congress Hotel, Chicago, Ill.

March 25 - Agricultural Leaders' Forum, Cornell University, Ithaca, N.Y.

March 26 - Deadline for sign-up feed grain program.

March 26,27 - Dairy Cattle Breeding Short Course, Pennsylvania State University, University Park, Pa.

March 28 - New York Flying Farmers Fly-In and Dinner, Hancock Field, Syracuse, N.Y.

American Agriculturist, March, 1965



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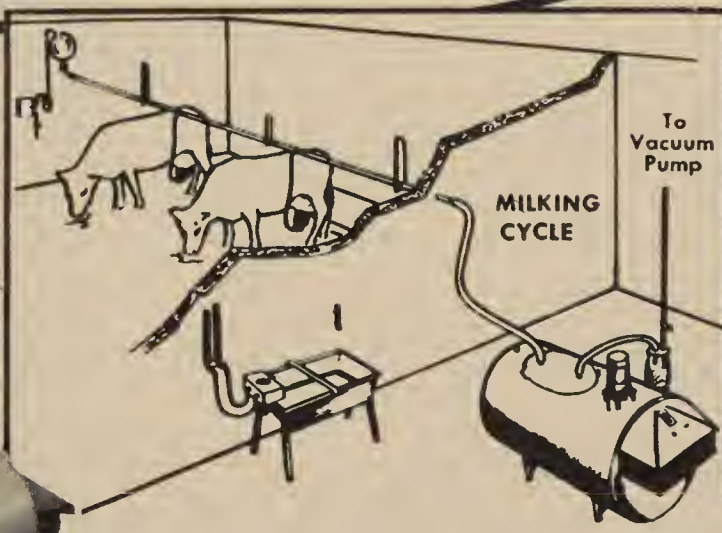
* British-made diesel tractors such as . . . Ford Model 5000 Super Major; Ford Model 2000 Dexta; I.H. B414; Massey-Ferguson 35 and 65; Oliver Models 500 and 600; David Brown 880 and 990.

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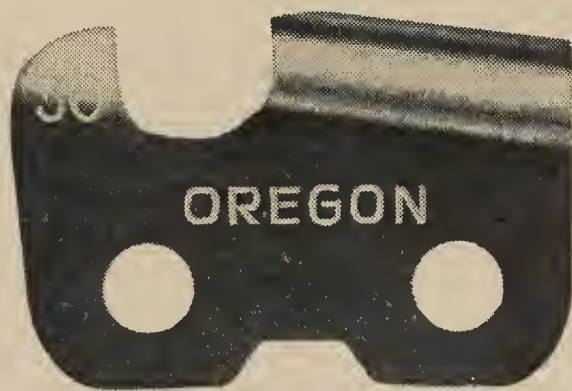
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Guarding Scotland's capital is Edinburgh Castle, dominating any view of the city and custodian of its ancient history.

BRITISH ISLES TOUR

Here is the third European Tour which American Agriculturist will operate in 1965, and it's a vacation many of you have been asking for — a tour to England, Wales, Ireland, and Scotland next fall! Just three weeks long (September 2-23) and taking in the most beautiful, famous, and interesting places in the British Isles.

We will have five days in Ireland seeing Galway, Blarney Castle, and Lakes of Killarney, the Ring of Kerry, Dublin, and many other fascinating places. A short flight takes us next to Glasgow, and while in Scotland, we will see the beautiful Lady of the Lakes country, Inverness, Culloden Moor, Balmoral, and Edinburgh, the ancient capital of Scotland.

History comes alive in Edinburgh as we visit the Castle and drive down the Royal Mile viewing John Knox's house. We will also see St. Giles Cathedral, Holyrood House, and beautiful Princes Street, lined with shops on one side and gardens on the other.

Wales Next

Then will come two days in Wales, a fascinating part of England which many tourists miss. We'll visit the ancient walled city of Chester, Harlech Castle, historic Tintern Abbey, and then on into Shakespeare Country to stay two nights at Stratford-on-Avon.

Of course we'll see Anne Hathaway's cottage and Warwick Castle, as well as the ancient Roman town of Bath and Torquay, England's most popular seaside resort. Also, Plymouth, famous English seaport; Salisbury Cathedral, Stonehenge, the White Cliffs of Dover, and finally London.

We'll spend four days in London and take excursions to Windsor Castle, Eton College, Runnymede where the Magna Charta was signed, and Hampton Court with its beautiful palace grounds and gardens. There'll also be ample opportunity to shop in London's famous stores for souvenirs and bargains in British woolsens.

We will fly across the Atlantic both ways in order to have more time for actual sightseeing. Special arrangement can be made, how-

ever, for any who prefer to travel by steamship.

In the British Isles, we will travel mostly by motor coach, with our own guide. Our nights will be spent in comfortable inns as well as in fine resort and city hotels. We will have delicious food, congenial company, and travel without a care in the world.

Our aim for this tour is not to do everything, but to do one thing well — to really see the British Isles at their best. Space is definitely limited to one motor coach, and when it is filled, no more reservations can be confirmed.

We will be happy to send you a free copy of the illustrated, printed itinerary. It will give you day-by-day details and the price of the all-expense ticket. We hope you'll come with us on this wonderful vacation!

Two Other Tours

We also want to remind you about our spring tours to Europe — the Iberian Holiday (April 26 to May 17) and our grand European Tour (May 12 to June 16). The first is another "special" tour to Spain and Portugal for those who want to do a smaller area more thoroughly. The grand tour takes five weeks and goes to eight countries: England, Holland, Belgium, Germany, Czechoslovakia, Austria, Switzerland, and France.

Whichever one of these three delightful tours you decide to take, you'll find it far exceeds your expectations. American Agriculturist tours are like that! To get a copy of any one or all of these tour itineraries, just fill out the coupon below and mail it today.

Gordon Conklin, Editor
Box 367-T
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:

British Isles _____ Iberian Holiday _____

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(Please Print)

American Agriculturist, March, 1965

Think big

(Continued from page 11)

inches below it, especially if more than 200 to 300 pounds per acre is used.

Much attention is being given to sidedressing corn with a nitrogen carrier when the corn is 12 to 18 inches tall. On heavily-fertilized corn some growers broadcast part of the fertilizer and plow it under.

Are foliar (leaf) applications of fertilizer recommended?

Not commonly. The amount that can be applied in one application is too small, and this method is usually costly.

How can weeds best be controlled?

Chemicals are now used by most farmers. The important thing is to follow manufacturers' directions exactly.

Atrazine, 2,4-D, and linuron (sold under the trade name Lorox) are all used for weed control in corn. The cost of the more expensive materials is often reduced by applying in a band over the row at planting, or one to five days after planting.

Whether dependence is put on chemicals or cultivation, good weed control is essential for a good crop. Weeds use plant nutrients . . . and water, which is often the limiting factor in yields.

Here are a few cautions:

Do not use 2,4-D low volatile ester on light soils. Damage will

result if rain occurs soon.

Don't plant sugar beets the year following use of Atrazine.

Don't use linuron after the corn comes up.

Is it a good idea to plant corn after corn, and if so, for how long?

More dairymen are growing corn on their best land year after year. I know one man who grew corn on the same field for 16 years with good results. Some, however, follow a rotation with corn for two or three consecutive years in the rotation.

Either method permits leaving good meadows down longer. Grass and legumes can be seeded without a nurse crop, or with a so-called nurse crop following fall plowing of a meadow.

What are the advantages of various methods of storing silage?

In general, it's a question of comparative waste and ease of feeding. The original cost of a stack, pit, or bunker silo is less, but there is usually more waste. I see fewer "self-feeding" pits or bunkers, where the cows eat their way into the silo, than I did a few years ago.

The highest cost storage, but giving the least waste, is the glass-lined steel silo with bottom unloader. The number of dairymen installing them has been increasing, and those I have talked with express satisfaction.

The pit silo with dirt sides is

going out. The concrete bunker silo has its followers, and adapts well to bunk feeding with a tractor and scoop. Occasionally a man tells me that the cost of elevating corn into a tower silo is too high to be economical.

More and more, dairymen are urged to lay out a complete feeding system before they decide on storage methods for roughage.

Other Developments

Other recent developments in storing corn are: (1) A machine which chops one row plus the ears from the next row to give a silage with more nutrients per ton. The stalks from the rows from which the corn is picked are shredded for bedding or plowed under.

(2) An airtight silo for storing wet ear corn or high-moisture shelled corn. This does away with drying corn for storage, and provides a feed equal to dry corn on a dry matter basis.

In fact, ear corn from the field or wet shelled corn can be stored in a conventional tower silo if care is used to make it airtight and if plastic is used on top to keep out air.

Corn can be stored or picked with husks on; it can be chopped, including the cob; or it can be shelled in the field and stored as wet shelled corn.

Whatever the system adopted, labor requirements should be a big factor. Automatic feeding of grain and roughage is going to be even more widely used than it is now.

Corn can play a larger part in the feeding program on many farms. To a large degree it's a management problem, including the choice of feeds, a complete program to increase acre yields (perhaps on more acres) and a feeding program to increase milk production at a lower cost per hundredweight. Much of this lower cost comes from mechanization, which cuts labor and permits the production of more milk per man

Dates to Remember

March 29-31 - 25th Annual Meeting Poultry and Egg National Board, Chicago, Ill.

March 29-April 2 - High School Natural Science Program, Cornell University, Ithaca, NY.

March 30,31 - Annual Pennsylvania Federation Quality Control Conference, Pennsylvania State University, University Park, Pa.

April 1-3 - Short Course, Swine Producers, Cornell University, Ithaca, N.Y.

April 3 - Curtiss Classic Holstein Sale, Curtiss Farms, Cary, Ill.

April 4 - N.Y. Shorthorn Assoc. Cattle Show and Sale, College of Agriculture, Cornell University, Ithaca, N.Y.

April 4-6 - Annual Food Distribution Conference, University of Delaware, Newark.

April 8 - N.Y.S. Guernsey Breeders' Cooperative, Inc. Annual Meeting, Beekman Arms, Rhinebeck, N.Y.

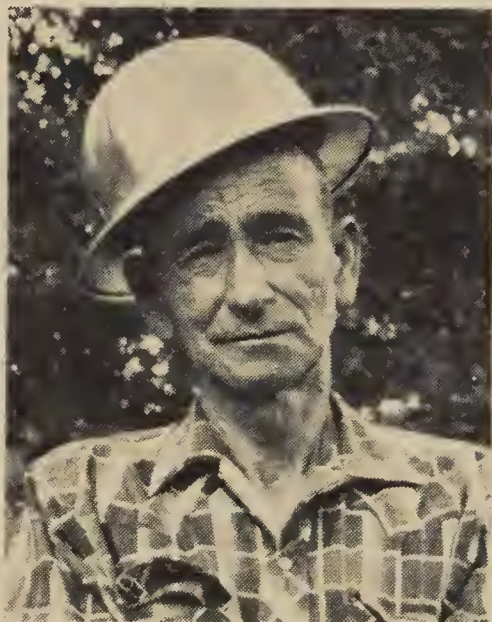
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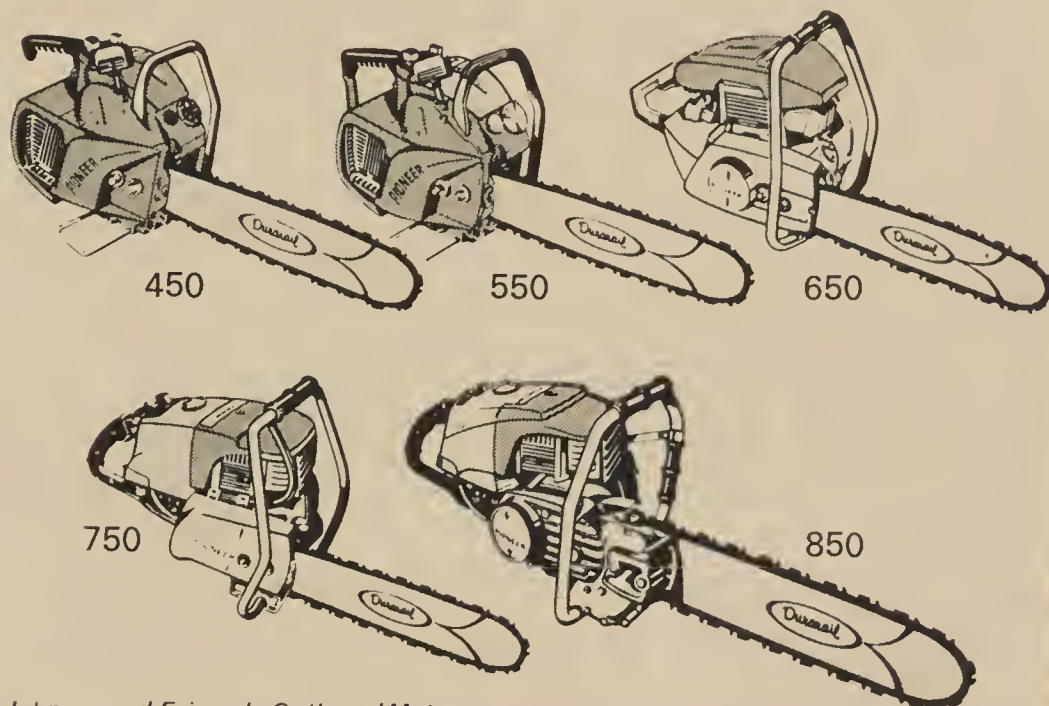


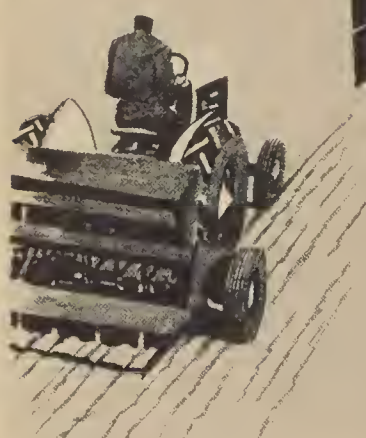
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A. H. HOFFMAN SEEDS, INC.
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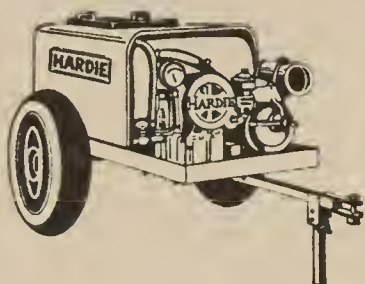
offman FARM SEEDS



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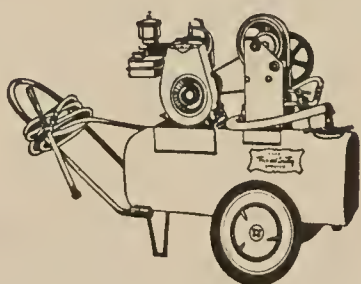
FOR YOUR GARDEN OR YOUR FARM... YOU'LL SPRAY BETTER WITH HARDIE

Model 99

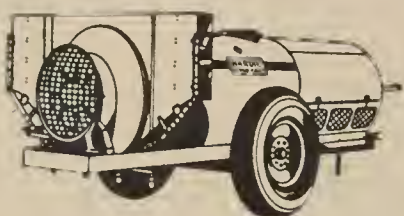


Model 99 Sprayer, available with 50 or 100 gallon tank. Skid or trailer mounted. Made for orchard, row crop, weed control, animal pest control, DDT spraying, poultry house work and in nursery and greenhouse.

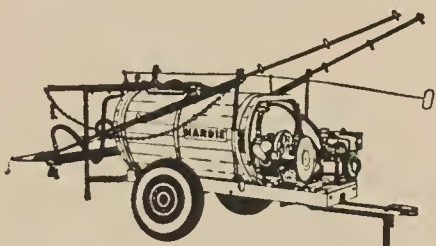
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Hardie Town & Country Sprayers, available with 15 or 30 gallon tank, comes with 25 ft. of high pressure hose, and adjustable Hardie spray gun. Ample capacity for spraying fruit trees, nurseries, gardens, weed and mosquito control.



You wanted an air blast row crop sprayer, and now here it is, tested and proven to give you dependable long life. Includes stainless steel tank, adjustable nozzles, "Duo-Fan" etc. . . .



A new Hardie unit . . . Model 99 WET150, incorporating the very popular 150 gallon Douglas Fir Wooden tank, with full length agitation and the universally accepted Hardie Model 99 pump. Features Hi-Lo pressure regulator weed boom.

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PEOPLE - THE KEY TO SUCCESS

By E. R. Eastman

THE DECEMBER 1964 issue of this paper was the first one combining two of the oldest farm papers in the United States: American Agriculturist, founded in 1842; and Rural New Yorker, started in 1852. In that issue on my page I said that the merger of these two farm publications was made in order to give better service to the readers of both papers.

Because the paper is owned by the Foundation, which represents the readers, no individual can gain financially from the profits.

The A.A. Platform

In the December issue also I explained that the steady climb to success of American Agriculturist from 1922 to 1965 was due to sound editorial policies, carried out by the right people. Those editorial policies which brought success to American Agriculturist include:

- 1) Help farmers to grow and sell better products;
- 2) Fight the farmers' public battles;
- 3) Promote good government and good citizenship;
- 4) Work for all rural people in addition to full-time farmers;
- 5) Help increase the happiness of rural people.

It makes no difference how good a machine or organization is if it is not well-manned. For example, you can have the best schoolhouse and equipment there is, but if the teachers are not good, you will have no real school. That goes for every organization, institution, and farm paper.

People Important

American Agriculturist has been very fortunate since 1922 in having hardworking, sincere, able and dedicated people to carry out its policies. Take a look for a moment at the personalities who helped American Agriculturist in the last 43 years, and through the paper helped farmers and farm organizations of the Northeast. Some of these people are still on the job.

Soon after I joined the paper as its editor, the late E. Curry Weatherby, whom many of you knew, joined the staff as circulation manager. With the help of Victor E. Grover and about 50 field representatives, Curry built the circulation of American Agriculturist to the highest in its history.

In 1925, Hugh L. Cosline joined with me as associate editor. In 1957, he succeeded me when I retired as editor after serving for 35 years. I still write a page for every issue and act as informal counselor. Hugh has made a life-long contribution to rural people, and has the respect and affection of thousands.

Irving W. Ingalls and Donald D. Eastman became advertising manager and assistant advertising manager respectively in the 1920's.

Both of these men served the paper long and well, and were greatly helped by the George Katz Advertising Agency, one of the best publisher representatives in the world. Together, Irv, Don, and the Katz Agency re-built the advertising lineage necessary to put American Agriculturist on a paying basis.

Printing Plant

Shortly after Henry Morgenthau, Jr. purchased the paper, he bought and equipped a printing plant in Poughkeepsie, New York, which printed our own publication and that of Dairymen's League News for many years. Until his retirement, Fred Ohm was plant manager, succeeded in recent years by John R. (Jack) Weatherby, son of Curry. Both men did an outstanding job in printing the paper with limited equipment at the plant.

Then, because the equipment was no longer adequate for modern printing, we closed the Poughkeepsie plant late in 1963 and are now hiring the paper printed in Buffalo, where there is every modern facility for manufacturing an up-to-the minute publication. Composition is done here in Ithaca by the Wilcox Press with their latest and most modern phototype methods.

The Distaff Side

I am sure that American women who now help to carry on the business and professions of America have never been given the credit due them, so I want to pay tribute here to the women who (both office workers and wives) have contributed so much to the success of American Agriculturist. Few really know and appreciate the contribution they make. There is nothing that adds more to a man's success than a well-kept home and a loving wife and family.

Space permits only brief mention of the women on our staff: Mrs. Mabel Hebel and her successor, Mrs. Augusta Chapman, are mentioned in the item on my page in this issue.

Mrs. Isa M. Liddell, now assistant to the editor, has worked for the paper for 30 years. She is one of the best secretaries and experts in the English language that I have ever known!

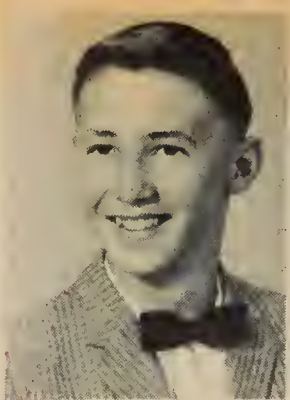
Mrs. Mildred Sinsabaugh, assistant treasurer, has often done the work of two or more people in keeping the financial records and accounts of American Agriculturist.

Mrs. Betty Boyd, secretary to Jim Hall, the publisher, is one of the most dedicated workers in my experience.

An editor would not get far without an excellent secretary. That Editor Conklin has in the person of competent Mrs. Sue Hastings.

(Continued on page 51)

American Agriculturist, March, 1965



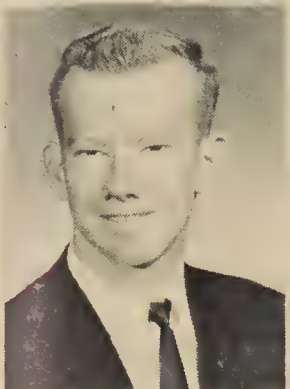
JAMES PATSOS



NANCY GOOSSEN



RICHARD FOX



CONRAD COOK



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ROBERT THOMPSON



MARGARET RICH



PAUL CHITTENDEN



RICHARD PATTERSON

4-H DAIRY CHAMPIONS

EACH YEAR the New York State Extension Service, in cooperation with the State dairy breed associations, honor the top 4-H members in over-all dairy achievement and herd building.

This year's winners are: James Patsos, Waterloo, Ayrshire Champion; Nancy Goossen, Palmyra, Brown Swiss Girl; Richard C. Fox, Clyde, Brown Swiss Boy; Conrad Cook, Potsdam, Guernsey Champion; Virginia Snider, Fillmore, Holstein Girl; Robert Thompson, Ogdensburg, Holstein Boy; Margaret Rich, Franklin, Jersey Queen; Paul Chittenden, New Lebanon, Jersey King; and Richard Patterson, Jr., Greig, Milking Shorthorn Champion.

James Patsos (18) son of Mr. and Mrs. James G. Patsos, Sr., started his 4-H project in 1958 with an Ayrshire calf which he received from his father; at present he owns five animals. He is attending the College of Agriculture at Cornell University, majoring in animal husbandry.

Nancy Goossen, (16) daughter of Mr. and Mrs. Raymond Goossen, started her 4-H work in 1958 with a Brown Swiss calf received from her parents. She has a fondness for the Brown Swiss breed and today has a herd of eight cows and four younger animals.

Richard Fox, son of Mr. and Mrs. Charles Fox, started his 4-H Club work in 1955 with a heifer calf from his father. At present he owns eight cows and six younger animals, plus a one-third interest in 35 cows, 16 young animals, and two bulls. Richard has finished two years at Cornell University, where he majored in animal husbandry. At present he is in partnership with his father.

Conrad Cook, son of Mr. and Mrs. Scott B. Cook, started in 4-H Club work in 1951. Since the first Guernsey calf given him by

his father, he has accumulated a herd of nine cows and eight younger animals.

The laurels in the feminine division for the Holstein Girl Award belong to Virginia Snider, daughter of Mr. and Mrs. Ceylon Snider. Virginia's father was the State Holstein Champion Boy in 1933 ... the first person so honored.

Robert L. Thompson, Ogdensburg, was selected from among 32 other well-qualified boys who were champions in their home counties.

A 19-year-old sophomore at Cornell University, Bob is studying agricultural economics. He won the Presidential Award for leadership at the 1964 National 4-H Club Congress.

Margaret Rich (16) daughter of Mr. and Mrs. George Rich, started her 4-H project in 1958 with a purebred Jersey calf. Since then she has accumulated a herd of 14 dairy animals, and has sold a total of five bull calves, ten heifer calves, and two yearlings.

Paul Chittenden (20) son of Mr. and Mrs. Stanley Chittenden, got a Jersey calf in 1958. Since then he has accumulated a herd of 32 animals and has sold a number of cows and heifers as breeding stock to other dairymen. At the present time his father, Stanley Chittenden, is president of the American Jersey Cattle Club.

Richard Patterson, Jr., (16) son of Mr. and Mrs. Richard Patterson, Sr., started his 4-H project four years ago with a Holstein heifer, then switched to the Milking Shorthorn breed. In 1962, Richard was awarded the P.D.C.A. Milking Shorthorn calf presented at the New York State Exposition. In 1963 this heifer was named the Grand Champion in the Milking Shorthorn 4-H Show at the State Exposition. — by Dennis Hartman



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News and Views from NEW YORK AND PENNSYLVANIA



Officers and directors of the New York State Association of County Agricultural Agents. Seated, left to right: S. Glenn Ellenberger, director of the N.E. Region, Allentown, Pa.; Earl A. Wilde, Liberty, N.Y., secretary-treasurer; Leslie G. Nuffer, Fort Edward, N.Y., vice-president; newly-elected president Ernest J. Cole, Ithaca, N.Y.; and Gilbert C. Smith, Penn Yan, N.Y., past president. Standing, left to right: Norman J. Smith, Mineola; Earl D. Howes, East Aurora; Ralph F. Geiger, Oswego; Richard C. Bornholdt, Watkins Glen; Donald A. Thompson, Troy; and Edwin E. Motsenbocker, Rochester.

Empire Meetings — This is the time of year when patrons of Empire Livestock Marketing Cooperative meet together to elect members of the several advisory committees of farmers at each market location of the Cooperative . . . Bath, Buffalo, Bullville, Caledonia, Dryden,

Gouverneur, Oneonta, and Watertown. These meetings are held during March and early April. Notices are sent to all patrons of record who have used the Cooperative's facilities and marketing services during 1964 announcing the date, time and place.

First Loan — The first loan to help a New York low income rural family raise their income and attain a better standard of living under President Johnson's War on Poverty program has been made to a Delaware County farmer. John H. Mondore, a victim of progressive blindness due to shrapnel wounds received during World War II, has been loaned \$2,500 for 15 years. With this he will refinance overdue debts against his small farm (30 crop acres), repair a building to house his poultry flock, and purchase four cows and some young calves. He is married and has 4 children, the oldest 14.

Second Largest User — Pennsylvania ranks as the nation's second largest participating state in the Federal Food Stamp Program, with a November total of 71,000 persons.

Cattlemen of the Year — Clayton C. Taylor, veteran Aberdeen Angus breeder, received the 1964 "Cattlemen of the Year" Award at the annual meeting of the New York Beef Cattlemen's Association. Mr. Taylor's citation read, "in recognition of 44 years of outstanding service in leadership, production and promotion of beef cattle in New York State." He is the owner of the well-known Dan-cote herd.

Clearing-House — In connection with the item on Page 29 of the

February issue about a clearing house for information about egg supply, the telephone number to call is Ithaca AR2-6818.

Agricultural Peace Corps — A recruiting drive for persons between the ages of 20 and 65, married or single, to form a New York State Peace Corps Agricultural Task Force will be conducted between March 1 and April 15. The work will be done by 4-H agents, who are cooperating with the Peace Corps in locating volunteers with an agricultural or home economics background but without a college degree. The goal is for 70 to 80 volunteers to work in Peru and Sierra Leone.

New York State Exposition — will be presented in two sections, spring and late summer. The main section will open August 31 and run through Labor Day. Newly added this year is the spring section, which will be devoted exclusively to the first part of the international horse show. Spring show dates are April 29 to May 2, inclusive, and May 6 to 9, inclusive. The second part of the horse show is scheduled during Exposition Week. **Water Storage** — O. B. Eisenman, Hallton, Pennsylvania, has written American Agriculturist-Rural New Yorker with a description of a water storage structure he built in his basement. He reports that it has performed yeoman service over the last ten years, and offers to give structural details to anyone who writes.

Crop dryers pay off

When you dry crops electrically, you are no longer at the mercy of the weather! You harvest when your crops are at top feed value. Your livestock benefit from higher quality feed . . . and you benefit through lower overhead and operating costs.

Our Farm Service Representative will help guide you in your selection of an electric crop drying system—for corn, small grains or for your hay. Feel free to

call on him for all your farm electrical problems or projects. There's no cost or obligation for this service. Just call our nearest office.

You'll farm better ELECTRICALLY!



Our man will help you plan!

Mergers everywhere

(Continued from page 32)

a merger resolution, but not the one Mutual had approved. After that, compromise talks started and ran along all summer.

When Champlain Creameries, Champlain, New York, got in financial trouble last fall and banks refused the checks of the owner, a crisis developed which Mutual and Metropolitan, working separately, were unable to solve. The result was that the Dairymen's League leased the plant from the owner and paid off the dairymen who were waiting for money for their October milk. The leaders of Metropolitan then realized that, if they had been one instead of two groups, they could have provided the services their members in the area required by buying the plant and operating it.

Principal objections on the part of Metropolitan delegates at the Syracuse meeting, where the merger was voted and approved on February 3, was against a one cent deduction on each hundred-weight of milk marketed by members. This will be repaid through a revolving certificate procedure, either to the co-ops which are members of the federated mother co-op, or to each individual farmer.

Meanwhile, reorganization of Metropolitan and Mutual into a new federated cooperative goes ahead. A vigorous membership and milk marketing program can be expected to emerge soon, as the combined forces of the co-ops go into action.

American Agriculturist, March, 1965

NEW YORK

Addison—Addison Farm Equip. Co.—121 E. Front St.
Akron—Blew Equipment, Inc.—32-43 Mechanic St.
Albany—Terminal Hardware, Inc.—1155 Central Ave.
Albany—Casey's Electrical Repair Shop, 402 N. Pearl St.
Albion—Bentley Brothers—RFD #2
Altamont—Alfred L. Schager—Star Route
Almond—McIntoch Farm Implement, 63 Main St.
Amsterdam—Joe Bazaar's Machine Shop—RD #2
Amsterdam—V. O. Smith Auto Sales—RFD #4—Rt. 30 N
Angelica—Herbert Wagner—Dalton Road —RD #1
Arkport—Francis Gowiski—RD #1
Armonk—A. J. Young, Route 22
Auburn—Main & Pinckney—RD #6
Avon—Webb Implement Company
Bainbridge—Carlton Loomis—Brackett Lake Road
Baldwin—Tool Rental Inc.—500 Merrick Road
Ballston Spa—Pettit & Son Equipment, Inc.—Route 50—South of Ballston
Batavia—Batavia Farm Equipment Co.
Bath—Bath Truck & Tractor Company, Inc.
Bayshore—Joans Mower & Power Tool Corp., 226 E. Main St.
Bedford Hills—H. A. Stein Tractor & Equipment Co. North Bedford Road
Belfast—Grastorf & Guilford—Main Street
Belleville—Herron Farm Supply—Southern Jefferson County
Blasdell—Monarch Sales & Dist. Company—4281 South Park Avenue
Blooming Grove—W. H. Rudolph, Inc.
Bolivar—Bolivar Magneto Company—65 Wellsville Street
Bradford—Fleets on Lake Lamoka
Brewerton—Van Epps—Route 1, Shop #9517
Brewster—The Powerhouse—Route #6
Braircliff—Wallace J. Scott, Jr.—Route 100
Bronx—Botwinick's Precision Saw Service, 911 Southern Blvd.
Bronx—Bronxwood Lumber & Supply Co., Inc., 801 E. 224th St.
Brooklyn—Neptune Marine—2023 Neptune Avenue
Cadosia—Houshultz Sales & Service
Callicoon—John H. Eschenberg—Rt. 17-B
Camden—Willard Rood—15 Harden Rd.
Canandaigua—Aldrich Farm Equipment—RD #2
Canastota—Alfred A. Patane—409 New Boston St.
Canisteo—Olson Equipment—58-62 Depot Street
Canton—Arthur Gary—R.D. 4
Carmel—Nichols Hardware, Inc., 45 Gleneida Ave.
Center Moriches—Savage Hardware—383 Main St.
Chaffee—Howard Ellis—Allen Road—R.F.D.
Champlain—Raymond Bedard
Churchville—Mr. M. E. Fairbanks
Cincinnatus—Robert Dunham—RFD 2—Route 2
Clarence—Williams Tree Surgeons—Townline Road
Clinton—Clinton Tractor & Implement Company, Inc.—Meadow Street
Coeymans—Blaisdell's Repair Shop—Westerlo St.
Cohoes—Building & Supply Co., Inc., Courtland & Canvass Sts.
Cold Spring—Cold Spring Service Center—Chestnut Street—Route 9D
Conklin—Ray E. Goodell—R. D. 1
Cooperstown—Western Auto Assoc.—167 Main St.
Corinth—Main Motors, Inc.—98 Main Street
Croton-on-Hudson—Zoller's Service—87 N. Riverside Avenue
Crown Point—Towne Brothers, Main St.
Dansville—K. G. Richmond—22 Ossian Street
Darien Center—Getman Motor Repair
Deer River—Francis Nichol—Saw Mill Road
Delhi—Delhi Farm Equip. Co.—23 Elm Street
Delmar—Hilchie's Hardware, Inc.—255A Delaware Avenue
Deposit—Edwin Hodam, Jr.—Sands Creek Road
Downsville—Joseph Capaldo—Route 206
Duanesburg—Berical's Equipment Co.—RD #1, Rte. 7
East Amherst—Mr. Harvey Pfennig, Transit Road & Millersport Hwy.
East Palmyra—J. J. O'Meal
East Patchogue—Brady Mower Service
East Pembroke—Ron & News Sales & Service
Elma—Pilgrim Equip. Co.—3080 Transit Rd.
Elmira—Cory's H'ware Co.—1548 Lower Maple Ave.
Erieville—Magee's Service
Fairport—Knapp & Trau
Falconer—Schutt's Saw & Mower Shop—135 South Work Street
Fishers Island—Home Appliance Center—Box G
Franklinville—Len's Sharp Shop—10 Green Street
Fredonia—Fredonia Farm Supply—McAllister Road
Freeport—Freeport Equip. Sales & Rental, Inc.—170 West Sunrise Hiway
Fulton—Harold Burton—202 Division Street
Garden City—Worth Supply Co.—270 Nassau Blvd. South
Gasport—C. J. Perry & Sons, Inc.
Geneva—C. M. Neilson & Son, Inc.—481 Hamilton Street
Germantown—Capitol Valley Cont. Inc.—Blue Stores
Glens Falls—J. E. Sawyer & Co., Inc. 6490 Glen St.
Glen Head—Countryside Enterprises, Inc.—691 Greenvale-Glen Cove Hwy.
Gouverneur—NESCO (Northern Engine & Supply Company)—RD #5
Gowanda—Gowanda-Harley Davidson Sales—Zoar Road—RFD #1
Great Valley—David J. Davies—Sugar Town Road
Greenwich—L. G. Collins—RFD #1
Hillsdale—Hillsdale Farm Supply Inc.
Holland—Lewis Machinery Service—Phillips Rd.
Hudson—Bame's Marine Supply—190 Fairview Ave.
Huntington Station—Island Power Tool Co., Inc.—152 West Jericho Turnpike
Ilion—Burrill Saw & Tool Works—401 E. Main St.
Ithaca—Valley Fixit Shop—363 Elmira Road
Johnsonburg—Walter Pope—RFD
Johnson City—Newman Bros. Hardware—257 Harry L. Drive
Johnson City—Oakdale Equip.—702 Main Street
Johnstown—LeRoy C. Sweeney—RFD #1—Hiway 116
Keene—Gordan C. Wilson—P. O. Box 16
Keeseville—Dan Downs
Kenmore—Kenmore Renting Co.—1297 Kenmore Av.
King Ferry—Roy A. Tuttle, Inc.—P. O. Box 34
LaFargeville—Clarence Comstock—RFD 1—Plessis Omar Road
Lake Pleasant—Wight's Esso Station

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Automatic Chain Oiling
35% Greater Fuel Capacity
30% Faster Cutting

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Lee Center—Stokes Chain Saw Service—RT #26
Leeds—Peter Suttmeier—Sandy Plains Road
Liberty—Gerow Brothers—RD #1
Long Eddy—Malcolm Crawford—P. O. Box 66, Rt. 1
Malone—Elliott & Hutchins, Inc., East Main Street
Margaretville—Fairbairn Lumber Corporation
Marilla—Victor's Sawmill & Sales, 11435 Bullis Rd.
Marlboro—State Sales Sons Inc.—Route 9W
Massena—Douglas LaPoint—Rt. #1
Mayfield—Peter Johnson—R.D. #1 Mountain Ave.
Mechanicville—Brenn's Lawnmower & Engine Shop R.D. #2—Rte. #9
Mendon—Saxby Implement Corp.
Middleburg—River Imp. Co., Inc.—Middle Fort Rd.
Middletown—H. L. Ayres—P. O. Box 187
Millerton—Brewer's Mower Sales & Service—Sharon Road
Minetto—Sawyer Foundry Co., Dumas Rd.
Monsey—John W. Knapp—Route 59—P. O. Box 105
Moravia—Moravia Implement Co., 23 Central St.
Morrisville—Ralph Pashley—P. O. Box 432
Naples—Francis Bills Garage—RD #1
New Lebanon—Joseph H. Mittenight
New Rochelle—Gundelach's Inc.—388 Main St.
New York—Hilco Products, 101 Park Ave.
New York—New Hippodrome H'ware—70 W. 45th St.
Niagara Falls—A. W. Bergeron's Garden Shop & Nursery—2594 Seneca Avenue
Niagara Falls—Delta Tool Rental—2901 Military Rd.
Niagara Falls—Hysen Supplies, Inc., 2425 Hyde Park Blvd.
Nicholville—Bould's Farm Supply
Nineveh—Maurice M. Wightman Sales & Service—R. D. #1—East River Road
North Boston—Klein Equipment Corp.
North Syracuse—Hytron Lumber & Supply, Inc.—Fay & Allen Road
North Towanda—Dougherty Builders Supply & Hardware, 4097 Beach Ridge Rd.
Odesa—Odesa Farm Equip., Inc.—c/o Stanley Darling—RD #1
Odgersburg—Fred Shurleff's Inc.—Washington & Catherine Streets
Olean—Bolivar Magneto Co. #2, East State Rd.
Oneonta—West End Imp. Co.—Country Club Rd.
Orchard Park—Site Contractors, Inc. 132 Calif. Rd.
Oswego—Cloonan Small Engine Service—RD #2 Hall Road
Palmyra—Jim's Photo & Hobby Shop
Panama—Weise Hardware & Electric Co.—Main St.
Parish—Parish Hardware—7448 Main Street
Pavilion—P-D Service
Peekskill—Peekskill Lawn Mower Center—Crompond Road
Penn Yan—Smith's Farm Store, Inc.—135 E. Elm St.
Pike—Leon Wilcox
Port Jefferson—Vehicle Serv. Corp.—1575 Patchogue Road
Port Leyden—McHale's Chain Saw Company
Port Washington—Manhasset Bay Outboard, Inc.—78 Shore Road
Poughkeepsie—Gifford Power Equipment, Inc.—115 Dutchess Turnpike
Pound Ridge—Pound Ridge Hardware
Prattsville—Prattsville GLF Service
Rensselaer—Henry Meurs & Son, Inc.—202 B'dway
Riverhead—Tryak Truck & Equip. Co.—Pulaski St.
Rochester—John Feathers—4135 W. Henrietta Road
Rochester—Power Specialists Corp.—74 University Ave.
Sag Harbor—Peerless Marine—Ferry Road
St. James—Molin's Lawn Shop—665 Jericho T'pike
Salem—Bud Clark Chain Saws, East Broadway
Sanborn—Le Van Hardware Inc.—5856 Buffalo St.
Saranac—Jon T. Ryan

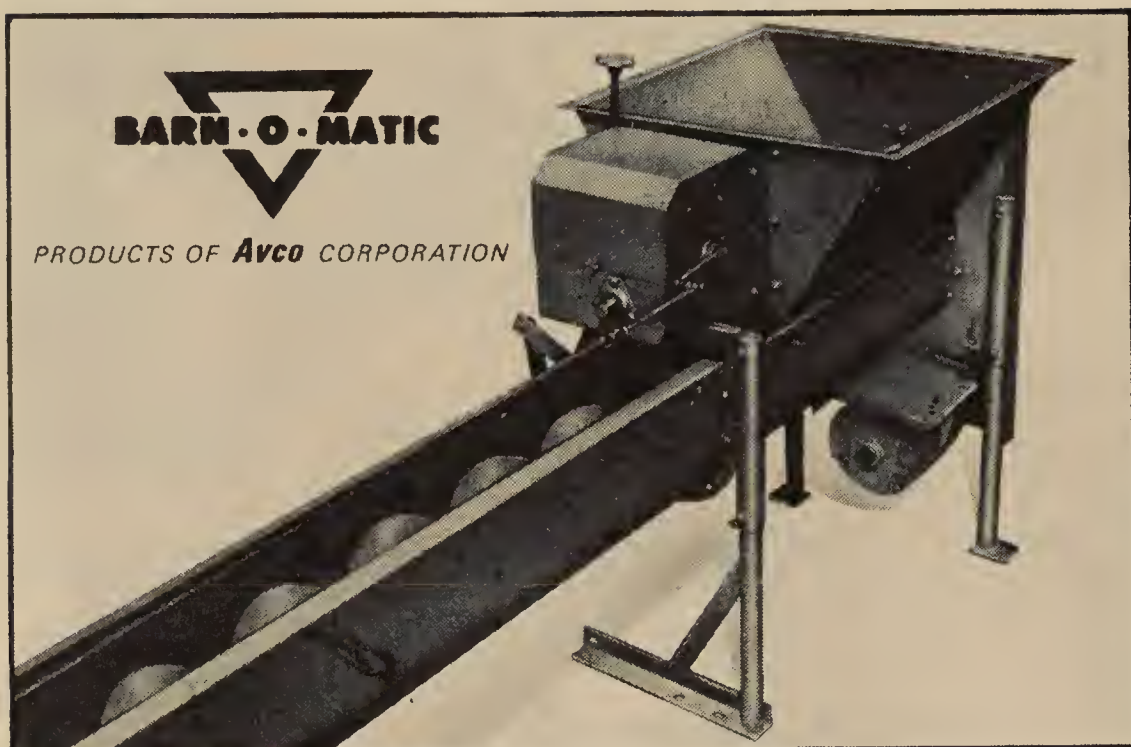
Saranac Lake—Moody's Sales & Serv.—7 Duprey St.
Saugerties—Ken-Rent—RFD 5—Box 13—Mount Marion Rd.
Savannah—Dickens Bros.
Schenectady—Carman Paint & Hardware—207 Campbell Road
Schenectady—Howard T. Getman, 3065 Gunderland Ave.
Schenectady—King Trac. Co., Inc.—145 Cordell Rd.
Schenectady—David Mahoney Co., Inc.—209 State St.
Schroon Lake—Lakeview Outdoor Center, Inc.—U S Route 9
Scotia—Wayside Acres Home & Garden Center—209-211 Sacandaga Road
Skaneateles—Bobbett Implement & Tractor Co.—Fennell Street—Box 98
Smyrna—John E. Blanchard—Route 80—Main St.
Southampton, L.I.—Wm. A. Frankenbach Garden Center—North Hwy. North Main Street
Southold—Ulrich Marine, Main Rd.
Sodus—Delyser Bros.
Speculator—Gerald Buyce
Spencertown—Paul Whiteman
Springville—Warner Lumber Mill—R. F. D. #1
Stamford—Eklund Farm Machinery—P.O. Box 216
Star Lake—Sports Center, Main St.
Staten Island—Forest Equip. Co.—1319 Forest Ave.
Staten Island—Trimalawn Equip.—2081 Victory Blvd.
Staten Island—United Rent-Alls of Staten Island—3874 Richmond Ave.
Stone Ridge—Dedrick Pow. Equip. Co.—Cottekill Rd.
Summitville—L. Finkle & Son, Inc.—Route 209
Sylvan Beach—Koster Building Supplies, Inc.—9th Avenue
Syracuse—Alex. Grants' Sons—935 Erie Blvd. East
Syracuse—Reliable Farm Supply, Inc.—2083-85 Park Street
Syracuse—West Genesee Sales, 2522 Genesee St.
Tarrytown—County Power Tool Company—625 White Plains Road
Thendara—Dan Hudon—Route 28
Thornwood—Stark Equipment, 578 Commerce St.
Troy—E. J. Goyer—R. D. 1—Box 35
Trumansburg—Millsbaugh Brothers—Cayuga St.
Tupper Lake—Herve St. Onge—39 Broad St.
Warrensburg—Carl R. Kenyon—Route 28
Warsaw—Oram Motors, Inc.
Warwick—Walter Equipment Company
Waterloo—Seaway Marina, Inc.—473 Waterloo-Geneva Road
Watertown—White's Lawn Supply—RD #4 (c/o C. Howard White)
Wayland—Gross & Didas—12 Main Street
Wells—Floyd Simons—Box 138 Old Wells-Speculator Road
West Albany—Abele Tractor & Equipment Company—72 Everett Road
Westfield—Rammelt & Sons, Inc., West Main Rd.
West Hampton Beach, L.I.—West Hampton Fuel—112 Montauk Hwy.
West Henrietta—James R. Hanna, Inc.—6800 West Henrietta Road
Westport—Marshall F. Fish—Rt. 22 on Lake Champlain
West Winfield—West Winfield Farm Supply
Whitehall—Norman H. MacLeod Saw Shop—Comstock Road
White Plains—The Larkin's Golf & Lawn Supply Corp.—1200 Mamaroneck Avenue
White Plains—Pickard Hardware, Inc.—203 E. Post Road
White Plains—Hecht & Sons, Inc.—11 S. Lexington Avenue
Whitney Point—H. A. Penningroth & Son
Yonkers—Joseph C. Ryan & Sons, Inc., 56 Main St.
NEW JERSEY
Allendale—Allendale Equip. Co.—317 Franklin Twp.
Allenwood—Sigler's—Rt. #34 Spring Lake Circle
Bayonne—Allied Equip. & Supply Corp., Inc.—691 Broadway
Bayville—Dover Sup. Co.—Box 225—Mill Creek Rd.
Bergenfield—Bergen Rental Service, Inc.—150 South Washington Avenue
Blairtown—J. C. Roy & Son

Branchville—The Roy Company
Camden—Antrim Hardware Co.—1514 Federal St.
Cliffside Park—Haiton Industrial Service, Inc., 666 Anderson Ave.
Clinton—Philip G. Berger—Box 5286—Route #22
Cranford—Andy's Handy Service—117 South Ave. W.
Dover—Handymans Tool Shop—Centergrove Rd. & Route #10
Elizabeth—A-M Tool Rental—69 Cherry Street
Elizabeth—Apgar Marine
Fairview—Edge Grinding Shop—388 Fairview Ave.
Freehold—C. H. Roberson, Inc., South Street
Garfield—Ralph's Hwg. Serv.—Rt. 46 & Boulevard
Gladstone—G. F. Hill & Company
Hackettstown—M. B. Bowers & Son, Inc.—128 Willow Grove St.
Hammonton—Parkhurst Farm & Garden Supply—301 North White Horse Pike
Hanover—Do It Yourself, Inc.—Route #10
Harrison—H. I. Karu—215 Harrison Avenue
Hazlet—Semcor Equipment & Manufacturing Co., 3141 Route 35
Hewitt—Sportman's Boats & Motors—W. Shore Rd.
Hightstown—Jos. J. Szczepanik, Sports, Lawn & Garden Center
Lambertville—John Kurtz—R. D. 1
Lawrenceville—Lawrenceville Hardware Company—2667 Main Street
Ledgewood—New Jersey Lawn & Power Mowers Equipment—Route 46
Little Ferry—Ted's Lawn Mowers—15 Riverside Ave.
Madison—Tractor & Lawn Mower Sales & Service—331 Main Street
Maplewood—Pierson's Mill Co., 697 Valley St.
Maywood—Maywood Power Equipment, 747 Spring Valley Rd.
Middletown—Monmouth Mower Shop—656 Route 35
Monroeville—Albert Weber—Route 538—Swedesboro-Franklinville Rd.
New Egypt—J. R. Caines—Route #539
North Brunswick—Lombardo's Mower & Engine Repair
Northfield—Vic Collins—2101 New Road
North Plainfield—United Rent-Alls—714 Route #22
Oakland—Bergen Power Equipment—593 Valley Rd.
Old Bridge—Old Bridge Tractor—RFD—Box 328
Old Bridge—William J. Rainaud—Box 95—Hiway. 9
Paramus—Artie's Hardware & Machine Shop, Inc.—495 Paramus Road
Penns Grove—R. F. Willis Co., Inc.—7 Oak St.
Pine Brook—Shulman Tractor Co., Inc.—Route 46
Pompton Plains—Livingston Sport Center—Route 23
Princeton Junction—Grover's Mill Company
Riverton—Riverton Fm. & Garden Sup. Inc.—Rt. 130
Roseland—Needham's Grinding Service—191 Eagle Rock Avenue
Roselle Park—Chestnut Paint & Hardware, 212 Chestnut St.
Rutherford—Colaneri Brothers, 236 Park Ave.
Saddle Brook—Point Service & Supply, Inc., 112A Route 46
Short Hills—Millburn Grinding Shop—658 Morris Turnpike
Somerset—Frank's Building Supply Co.—619 Somerset Street
Somerville—Post Stores, Inc., US Route 22
Summit—Glenjay's Mower & Garden Shop—385 Springfield Ave.
Sussex—Len's Service Station—R.D. 1
Trenton—United Rent Alls—1690 Pennington
Tuckerton—Magraf's Hardware—North Green St.
Union—Rent-A-Tool—2491 Route 22
Vincetown—Wells Mobile Service—Route #206
Vineland—Swanson Hardware Sup.—533 N. E. Ave.
Waterford Works—Rusnak Bros. Inc.—Chew Road
West Orange—Pleasant Valley Shop, 454 Pleasant Valley Way
Westfield—Storr Tractor Co.—469 South Ave. E.
Wharton—J. W. Malson, Sr.—Route 15 (RFD 2)
Williamstown—Weed's Lawn & Garden Mart—311 South Black Horse Pike
Woodbine—South Jersey Farmers Supply, 507 Franklin St.
Woodbury—Arber's Lawnmower & Engine Service—962 North Broad Street

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new

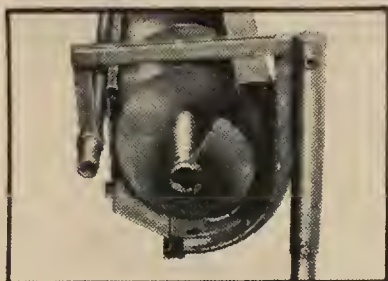
EVEN-FEED Cycling Device for Barn-O-Matic Floating Auger Bunk Feeders!



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PRODUCTS OF **Avco** CORPORATION

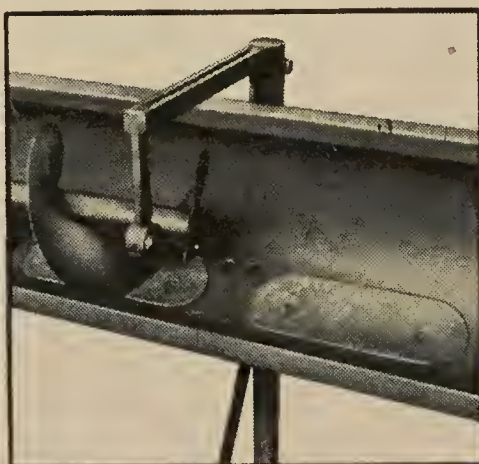
EXCLUSIVE EVEN-FEED CYCLING DEVICE controls the gates, assures even distribution of feed the entire length of the trough without separation. Easy to adjust and set, the timer receives its power from the drive unit. No need for special wiring. Settings for up to 150-foot increments. All animals get equal ration; same quality ration, too.



NEW GATE DESIGN has unique lip configuration. Overlaps with the trough lip to form a better trough seal. Gate interlocks to assure positive opening and closing.

NEW REPLACEABLE PLASTIC WEAR PADS in the bottom of each section result in longer auger and trough life, plus a quieter operation.

Decide what you want your feeding system to do—there's a Barn-O-Matic combination that'll do it! Design your own, or ask your dealer to assist you in preparing a system that will fit your needs best. Or write for further information.



Distributed in many areas by New Idea, Coldwater, Ohio



New! Single Auger Silo Unloader

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☐ Silo Unloaders ☐ Have Dealer Call

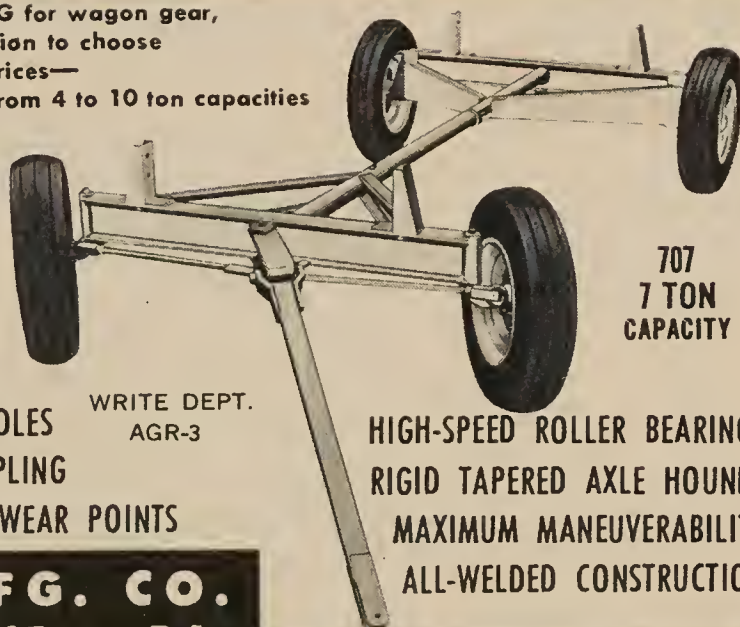
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The Strongest Load-Rated Farm Wagons For The Money!

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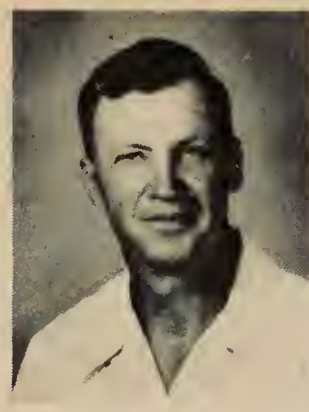
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RIGID TAPERED AXLE HOUNDS
MAXIMUM MANEUVERABILITY
ALL-WELDED CONSTRUCTION

GROVE MFG. CO.
SHADY GROVE, PA.



Gayway Farm Notes

by **HAROLD HAWLEY**

TO GO OR NOT TO GO

All across the land our high school seniors are applying for admission to the college or colleges of their choice, and then sweating out the time until they hear if they have been accepted. Each year it seems to become more of a rat race to get our boys and girls all located where it is hoped they will obtain a useful exposure to some higher education.

I'm one of those with little patience for the youngsters who go to college because it's sort of the thing to do. I have little use for the notion that every kid with the ability to do college work should go. Unless the desire is there, I doubt they should go.

The other side of the coin needs examining, too. It seems perfectly clear that a lot of really able farm boys and girls are going direct from high school to the farm without taking the time to get the additional training that could do so much for them. Certainly, we've reached the point in American agriculture where there is no doubt but that education and training pay off big. It's not enough to say that because Dad has been a successful farmer without extra training his son shouldn't be encouraged to get all the schooling he can. The agriculture of tomorrow will put a big, big premium on the man who is well trained and well educated.

My only point in this is to suggest that if a boy or girl has the ability and the desire, possibly the finest thing that can happen to him is to have his parents let him know they will do all they can to help him get schooling beyond high school. A little urging at the right time can make a better farmer or farmer's wife of these youngsters, and possibly pay big dividends in local leadership.

ADJUSTMENTS

The young do adjust more readily than the old — cows as well as with humans. The individuals that were slowest to learn to come into the parlor, slowest to learn to eat grain in the parlor, etc., were always the old cows. New heifers added to the barn after it was going frequently come into the parlor with no special handling, merely follow others in. Once in, they go to eating pellets right away.

I suppose it's only an admission that those good blissful teenage years are about gone for me when I tell you that, in general, the cows adjusted faster than I did. I worried about slipping and injury on

the steel slats. The cows make a very quick adjustment and in a matter of minutes are able to get around on slats with no trouble.

A man naturally worries about adjusting the cows to a change in ration (from hay, corn silage, and grain to haylage, corn silage, and pellets) without loss of production. We didn't do it. Change in feed and environment cost us a 20 percent drop in production, and it took almost 6 weeks to fully recover. But I'm sure the cows didn't worry about it; they are smarter than that. Now they are producing at a nice rate.

I missed not being able to see more of the cow in the parlor so I knew who she was. This new relationship to a cow where she became just a hind leg and an udder bothered me, but the cows couldn't care less. Unflattering though it is, honesty compels me to say that in this new, impersonal relationship the cows miss me not at all. I'm fast getting over this.

Most who ask about the slatted floor setup want to know about odor. The whole barn is well ventilated but it still smells like silage and cows. The pits do not give off an odor as yet except a little right near the parlor. Whether this is due to dumping in our wash water with its detergents we do not yet know. At any rate, odor is no problem.

An interesting sidelight — on zero mornings the air temperature in the barn went to about 40° with the pits still warm. We got about a foot of "ground fog" all over the barn as a result of the temperature variation. However, this soon left.

SPECIALIZATION

It's here to stay, this trend toward specialization. Unless one stops to give it some thought he is not likely to realize how far we have gone in this direction.

In industry the ultimate always seemed to be the assembly line, where a man was so specialized in his work that he perhaps only added one part or one group of bolts or whatever to the thing on the belt which would soon be a new car or truck.

I've been impressed by what is happening in just small everyday industry and business. Take the people who do nothing but keep for rent scaffolding and forms; builders use these in preference to building their own — and at a saving.

As cars and machinery get more complicated, service men become more specialized. A tractor man who really knows hydraulics is

(Continued on next page)

American Agriculturist, March, 1965

Gayway farm notes

(Continued from page 50)

becoming a must for many shops — and here again the man becomes more and more specialized.

In agriculture, the situation is the same; some grow broilers, some produce eggs. Of course, where a man does one thing only he should do it well. Friends on the muck at Montezuma grow potatoes — nothing else. Another man grades and packages them, while someone else actually sells them.

We are beginning to see dairy-men "farm out" their heifers for someone else to raise for them while they concentrate on milking cows.

As specialized equipment becomes more expensive and necessary, one inevitably goes for a large acreage of the crop or crops he is mechanized to care for, with

resultant lower overhead costs per acre for the use of the machinery. Likewise, fewer and fewer crops will be grown so that fewer machines will be needed. This specialization enables a man to do a real good job on the things he concentrates on doing. Of course, his eggs are all in one basket in case of bad years.

Credit agencies find themselves carrying these specialists over a bad period in order to collect when things improve. Like it or not, more specialization will come. Actually, just from the standpoint of being well informed about the enterprises each of us attempts to care for, there is much to be said for specialization. I'd hate to try to keep up with the latest information for all the various enterprises we once kept here. Possibly we can sum it up by saying that as we specialize we come to know more and more about less and less!

The key to success

(Continued from page 46)

American Agriculturist has been fortunate in securing the help of fine, highly-qualified women for the work of the advertising department. They include: Miss Margaret McCann who was with the department for a long time. Still with us are: Mrs. Sophia Malone, Mrs. Marjorie Parsons (who also manages American Agriculturist's Service Bureau), Mrs. Julia Holloway, and Mrs. Shirley Carman.

Mrs. Mayme Tillman joined the staff when our printing setup changed, and does a splendid job of pasting up the pages ready to be photographed in our photo-offset printing process.

I pay tribute also to Mrs. Esther Wilcox who was one of my secretaries when I was editor, and who has worked for me faithfully and well ever since.

Loyal Friends

For 14 hard years after Henry Morgenthau, Jr. bought the paper in 1922, he had to put substantial

personal funds into American Agriculturist in order to build it up. He never hesitated nor lost faith in the paper, and sold it only because he could not legally continue to own it and accept the appointment as Secretary of the United States Treasury offered him by President Franklin D. Roosevelt. The publication will always owe a deep debt of gratitude to Henry for putting it on its feet.

When we moved to Ithaca in 1934, we never would have succeeded in getting it started on a sound basis here if it had not been for steadfast friends like the late Ed Babcock, the late Frank E. Gannett, and especially E. Victor Underwood. These men stood by with valuable counsel and encouragement, and enabled us to obtain the funds to purchase the paper and the printing plant in Poughkeepsie from Mr. Morgenthau, and to operate from our headquarters here in Ithaca.

A farm paper — like an individual — can get no place without friends. (*Editor's note — see also article "The AA-RNY Family" on Ed's page next to back cover.*)

The Song of the Lazy Farmer



If I was in my youth and spry, by golly I would learn to fly. I envy birds, and pilots, too, when they go soaring in the blue so far away from

American Agriculturist, March, 1965

strife and care; they must feel free and clean up there as they go zooming all around and never hear a single sound of scolding wife or bankers who remind you that your note is due. It seems to me that, without wings, a man must miss too many things; his vision's narrow as can be because he never gets to see the stars up close, nor does he know what crops look like a mile below.

Now we have jets that leave the ground and travel twice the speed of sound; with one of them, just think where you could go if you decided to. Whenever summer weather gets too sticky, sweaty, steaming hot, I'd just take off and climb up high into the air-conditioned sky. When neighbor's talk got on my nerves, I'd clear my head with sweeps and swerves; and if Mirandy nagged too much about my laziness and such, I'd just refresh my heart and soul by packing up my fishing pole and zip 'way up where big fish lurk and no one bothers about work.

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Trudan I makes more green chop ...faster

You cut Northrup King's Trudan I when it is 30 to 40 inches tall, and it gets up there in a hurry. Trudan I has grown two inches and more per day. It keeps coming back, fast.

The combination of leafy plants and great growth rate yields "mountains" of milk-making forage. For example, Trudan I, a true sudangrass hybrid, can make up to 40 percent more forage per season than other sudangrasses.

Trudan I is palatable and nutritious. Cows eagerly clean up Trudan I green chop . . . tender leaves, fine stems and all. Put up as haylage, Trudan I will give you this green chop goodness year 'round. The protein content has tested 17 percent and higher. Trudan I forage yields 70 percent to 75 percent TDN at recommended cutting stage.

Trudan I is vigorous, versatile. Keeps going through summer slumps better than most forages, making fine quality hay, or succulent pasture.

Trudan I is safer. Prussic acid content is lower in Trudan I than in the sorghum-sudangrass hybrids and most sudangrasses, but good-management safety precautions should always be practiced.

Trudan I is catching on fast. Northrup King's entire supply of Trudan I seed has been sold out every year since it was introduced. Many dealers are already sold out of their 1965 allotment.



560 Fulton Street, Buffalo, N.Y. 14240
Distributors of Northrup King Corn,
Alfalfas, Sorghums & Special Forages



SOIL TESTING

by Tom Scott*

KEEPING STRIDE WITH advances in farm equipment, crop varieties, and chemical pest control have been our advances in soil fertility . . . both in testing soils and in fertilization materials.

A soil test should determine the extent to which nutrients in the soil are going to be available to a crop during the growing season. A complete soil test is the best guide to intelligent lime and fertilizer recommendations.

A word of caution, though! In testing soils for plant nutrients, we are not interested in the total amounts that can be found in the soil, but rather in the availability of the plant nutrients. In other words, by chemical tests we determine the relative amount of plant nutrients a soil can supply to a plant during a growing season.

An Example

For example, we know that in most New York soils the plow layer contains about 40,000 pounds of potassium per acre. Unfortunately, less than one percent of this total amount may be available during a given growing season . . . in many cases only 0.1 percent. A soil test will predict the extent of this availability. This is an example of why we emphasize the importance to farmers of knowing who is testing their soil, and that these tests have been correlated with field trials.

Soil tests should be considered as tools for the evaluation of soil fertility. The immediate objective of soil tests is to make possible the better selection of lime and fertilizers. Fertilizer recommendations based on complete soil tests pinpoint the kind and amount of fertilizers needed for specific crops on certain soils. Soil testing brings nutrient control within our grasp.

Don't Oversell

Soil testing does, however, have its limitations. When we consider all the thinking that goes into making a valid fertilizer recommendation, soil testing can contribute

only 30 to 40 percent of the information needed. Other facts must be known . . . such as the crop to be grown, soil type, and previous cropping history of the field. Of course, another limitation is that soil tests cannot anticipate climatic conditions during the growing season. Weather during a growing season certainly exerts an influence on the availability of nutrients in the soil.

Real Key

The real key to success with a good, on-the-farm soil testing program is a keen observer. Good farm operators test their fields at least once in every rotation. The results are recorded field by field, and referred to annually when planning a cropping program for each field.

A good example is the system followed by Ken Roach, Oxford, Chenango County, New York. Ken has a 5 x 7-inch file card for each field on the farm . . . each year he records the liming, fertilizing, seeding rate, etc. Soil tests are taken at least once in every rotation and these results recorded on the cards. During the winter and spring, Ken has an easy reference to the field histories of each field on his farm. The result is an individual who knows his fields as well as his cows, and has a top-notch cropping program to prove it.

Testing for Acidity

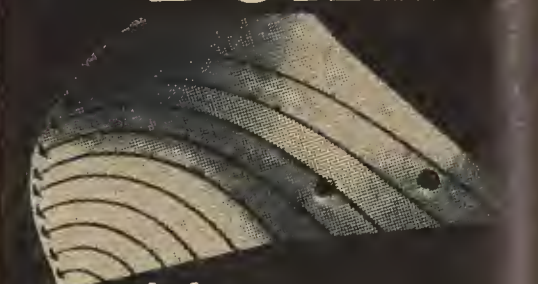
The pH test included on all soil tests has been a reliable method for making liming recommendations. However, most of these recommendations were based on the assumption that the soils were a loam or silt loam and contained four percent organic matter. Many northeastern soils contain amounts of clay and/or organic matter that substantially increase the lime requirement . . . but this is not reflected in the pH test.

New York has added a new test to its complete soil analysis, the test for exchangeable hydrogen, accurately to determine a soil's lime needs. Farmers spending

(Continued on page 53)

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American Agriculturist, March, 1965

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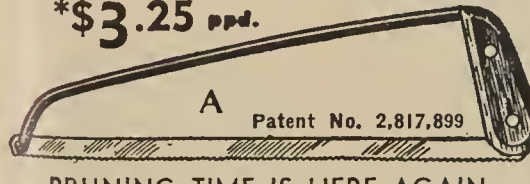
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H. W. NAYLOR CO.
Morris 12, N.Y.

Dr. Naylor's DEHORNING PASTE

Soil Testing

(Continued from page 52)

money for good legume seed should not be guessing as to how much lime a field needs to properly germinate and grow that seed!

By the way, any land coming back into production after not being used for a number of years (Soil Bank land, for instance) will very likely have dropped in pH value. Be sure and check its lime needs!

Good Soil Sample

A soil test can be no better than the sample that has been collected. Here's how to get good ones:

1. Assign identification numbers to all fields.
2. Take a composite sample from 15 to 20 spots in every five to ten acres. Scrape away surface litter, then take a small sample of soil from the surface to plowing depth, seven to nine inches.
3. Do not take samples from unusual areas (dead furrows, back furrows, fence rows, boundaries between slopes and bottomlands, areas on which old manure or straw has been piled, isolated wet spots, sites on which brush has been burned, or spots on which fertilizer was banded the preceding year.)
4. Use an auger, spade, or soil tube as a sampling tool.
5. Mix the 15 to 20 soil borings together in a clean pail. Then take the sample for testing from the composite.
6. Fill out the information sheet in detail. Identification of soil type and past management history are especially important.
7. Number the samples and keep a record for your personal files. Prepare a map or sketch of the fields indicating where the samples were taken.

COMPUTER PRESCRIPTION

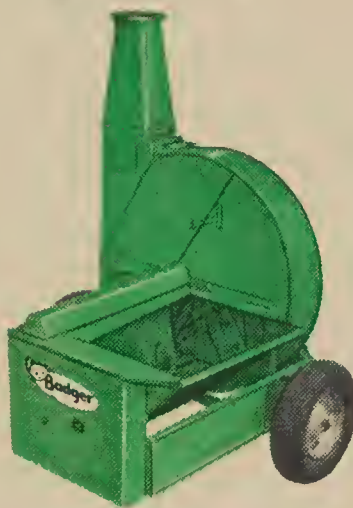
The H. J. Heinz Company has announced that its contract growers are receiving individual soil fertilization recommendations cranked out by a gigantic computer. For a grower's particular field, information from a standard soil test is fed into the computer, along with other information such as fertilization history, crop rotation practices, and desired crop yields.

Max Reeder, general manager of the Heinz Agricultural Department, says: "A long-range soil fertility program is what we are working toward in our computerized soil-testing program. We are convinced that computers will be important in soil building and in maintaining fertility levels. The computer cannot think, but it does have the ability to compare and analyze facts much more rapidly and accurately than has ever been possible."



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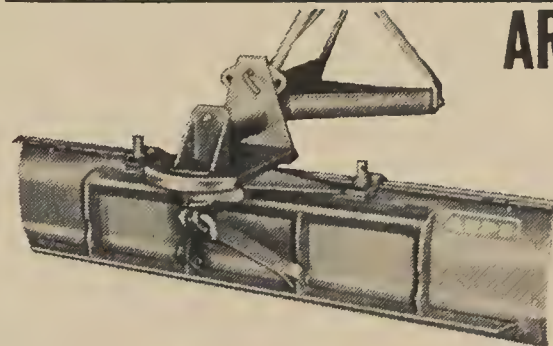
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CHAROLAIS

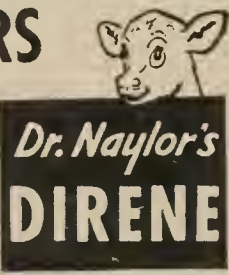
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WEEDER CHINESE, Embdens, Toulouse, African Goslings, Muscovy, Pekin, Rouen, Buff, Khaki, Crested Ducklings. Guineas. Blyler Hatchery, Gratz, Penna.

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FAMOUS Norwalk White Emden, Toulouse and White Chinese goslings. Weeder geese. Mammoth White Pekin, Rouen, Indian Runner and Flying Mallard ducklings. Guinea Keets. Wikel's Norwalk Goose Hatchery, Collins, Ohio.

GOSLINGS, WHITE EMBDEN, Alive delivery guaranteed. Mother Goose Hatchery, DeGraff, Ohio.

MAMMOTH PEKIN DUCKLINGS. Breeders of Long Island's Famous White Pekins. Hatching eggs—breeding stock. Inquire about prices. Long Island White Pekin Duck Co., Eastport, Long Island, N. Y.

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DAIRY GOATS. Small Investment, good return. Learn how. Factual magazine, \$2 Annually. Dairy Goat Journal, Columbia FF-36, Missouri.

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CDG REGISTERED Polled Herefords. Two year old bulls, good selection, ready for service. Also group of yearling heifers. Records of gains and official grades. Write for our brochure. We have the highest standards in the East. Charles D. Gibson, Deer Run Farms, Hillsdale, N. Y. 518-325-7821.

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ANNUAL QUARTER HORSE SALE

Monday eve. March 29th. 1965

MARTINS SALES STABLES

Blue Ball, Pa., Lancaster County

Sale limited to 75 head. Entries to

be in by March 20th. 1965

PAUL Z. MARTIN

Blue Ball, Pa. Ph. area 717, 354-6671

Auct. Tom Caldwell—Ontario, Calif.

WRITE FOR CIRCULAR

HORSES

STALLION SERVICE — Registered Quarter Horses: Beautiful Golden Palomino; Chestnut. Phone 466-7404, Albert Bailor, Angelica, N. Y.

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RAISE RABBITS SUCCESSFULLY by knowing facts. 48 page illustrated book describing 25 Breeds. Housing, breeding, feeding, markets, marketing, etc. 25 cents. American Rabbit Association, 28 ARBA Building, Pittsburgh, Penn.

RAISE ANGORA, New Zealand Rabbits, Fishworms on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

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SUFFOLK EWES lead lamb production, lambing early, hardy, meat-type animals preferred by markets! National Suffolk Sheep Association, Box 324RN, Columbia, Mo.

OXFORDS—25 large, young, registered Oxford ewes, excellent breeding due to lamb early in March. Lawrence L. Davey, Marcellus, N. Y.

SUFFOLK RAM: Ewe Sale Saturday, May 29. Chicago International Winners sell. Informative catalog free. Beau Geste Farms, Oskaloosa, Iowa.

LATEST practical information on sheep-raising. \$2.00 year. Shepherd Magazine, Sheffield 22, Mass. 5 helpful back issues \$1.00.

SWINE

FEEDER PIGS: grain fed, vaccinated, castrated, delivered by truck COD on approval. 75 or more, 6 weeks 25 lbs. \$11. each; 40 to 50 lbs. \$15. each. C. Stanley Short & Son, Cheswold, Delaware. 653-9651.

PUREBRED YORKSHIRE SALE — March 13, 1965, Empire Livestock Pavilion, Caledonia. Boars, Bred Gilts, Open Gilts offered. Further information or catalog obtained from James McKenzie, Covell Road, Pavilion, New York.

GRADED FEEDER PIG AUCTION April 2, 1965, 8 P.M. E.S.T. Evening Sale. Geauga Livestock Commission, Middlefield, Ohio. 800 head mixed breeds, sold by weight. Vaccinated for cholera by licensed Veterinary with modified live virus and serum. Bank reference required. Additional information, contact Tom Givan, ph. 632-6681. Northeast Ohio Graded Feeder Pig Sale.

HAMPSHIRE BOARS, gilts and weanling pigs. Certified meat type. Ralph Bliek, Williamson, N. Y. Phone 315-LT-9-3087.

MONTHLY MARYLAND FEEDER Pig Sales —1:30. 2nd Monday—Caroline Sales, Denton. 4th Monday—Livestock Exchange, Boonsboro. 4th Thursday (4th Fri.—Nov.)—Rudnick & Sons, Galena. 23,664 vaccinated—health inspected—graded pigs sold by pound to highest bidder 1964. Maryland Swine Producers, Fairgrounds, Timonium.

MASSACHUSETTS VALLIDATED SWINE Herd #43. Feeder pigs, Boars, Yorkshire-Hampshire cross. Grain fed only. Roberts Hog Farm, Barre, Mass.

TWELFTH ANNUAL Yorkshire Sale: 35 Bred Gilts; 20 Open Gilts; 20 Fall Boars. All Registered, and Production Tested. 80 Commercial Open Gilts, pure but not registered. All choice selections. Many from Certified meat type litters. All by Production and Meat Tested Sires. Many National Champion Bloodlines. Foundation and replacement herd stock for both commercial and purebred hog farms. Friday March 5, 1 PM Eastern Standard Time, Beaver Fair Grounds, Beaver-Springs, Pa., Brooks End and Par Kay Farms. Reno H. Thomas, Sale Manager, Beavertown, Pa. Catalogues available. Mail and phone bids accepted.

POLAND CHINA Weanling Boars and Gilts sired by New York Grand Champion and an outstanding litter by the Wisconsin, Ohio and Iowa Grand Champion. Also bred gilts for sale. These Polands are big, rugged and meaty. Richard Crye, Avon, New York, Phone WA6-3535.

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TURKEY POULTS, 30 for \$14.95. 100 \$39.95 postpaid. Hatching Rose-A-Linda. Low as: Goslings, 89¢. Ducklings, 24¢. Guineas, 28¢. Cooper Hatchery, Oakwood 15, Ohio.

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NEW! NOW TREAT Mastitis for less than 21¢ with new Uni-Power Infusion! Each dose contains: 100,000 units procaine penicillin, 100 mg. dihydrostreptomycin, 100 mg. neomycin, 750 mg. sulfathiazole, 750 mg. sulfamerazine, 5 mg. cobalt. Infuse directly into the infected quarter by withdrawing 10cc (1 dose) into a syringe with a needle, then replace needle with an infusion tube. Also ideal when drying off a cow—infuse 10cc of Uni-Power into each quarter—allow to remain until the cow freshens. "An ounce of prevention is worth pounds of milk." Recommended by leading veterinarians and dairy experts. Per 100cc bottle (10 doses) \$2.35. Six bottles \$2.25 each. Order 12 for \$25.00 and receive free syringe, needle and infusion tube. At your Anchor of New England dealers or order direct from Anchor Serum Company of New England, Dept. A-4, Topsfield, Mass. Write for free veterinary supply catalogue and health guide. Please note: As always, milk should be withheld from human consumption 72 hours after the last treatment.

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KEN-MAST MASTITIS TREATMENT—Penicillin, Dihydrostreptomycin, Neomycin, Sulfanilamide, Cobalt in 15CC disposable syringes. Dozen prepaid \$5.15. Quantity savings. With hold milk from treated quarter 72 hours. Authorized Anchor Serum Dealer. Kensington Veterinary Supply, Kensington, Connecticut.

HYDROCORTISONE MASTITIS TREATMENT (Highest Quality). Also contains Penicillin, Dihydrostreptomycin, Sulfanilamide, Sulfathiazole, Cobalt and Papain in a special diffusable base \$4.50 dozen 15cc syringes. Pen-PZ \$6.75 dozen syringes, Terramycin \$5.10 box of 10 tubes, Combiotic 100cc's \$2.00, Sul-Mycin 100cc's \$2.35. Postpaid. Prompt dependable service. Free Price List. Paul & Company, Harvard, Mass.

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AGENTS to sell Mineral and Vitamin Supplement, Udder Ointment, other Animal Health Products. Big Commissions. W. D. Carpenter Co., Inc., 111 Irving Ave., Syracuse, N.Y. 13210

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AUCTIONEERS — Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox, Phone—Bergen 146, New York.

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CENTRAL NEW YORK Farms, Hunting lands, Business opportunities, Summer places, Foster - Abraham, Real Estate Brokers, Norwich, N. Y., 607-334-3555.

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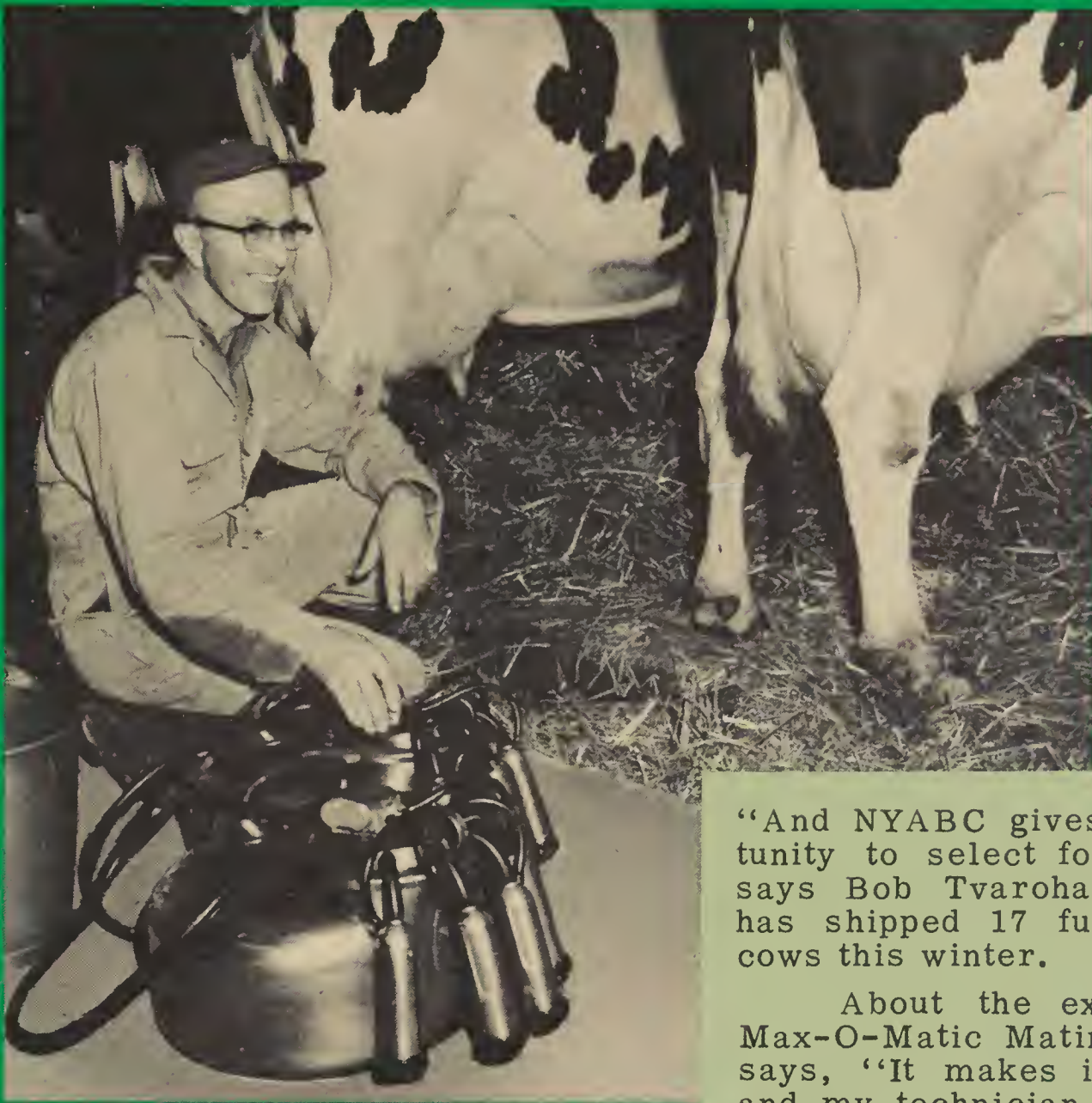
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100 TONS of mixed Alfalfa, Trefoil, Timothy hay. No rain damage. \$35. per ton. Clifford and Paul TenHuisen, Clymer, N. Y. Phone 3554485.

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MALE AND FEMALE ATTENDANTS. Salary \$3710-\$4615 per year plus longevity increments. Annual salary increases. Less maintenance (board, room and laundry \$9.79 per week). Five day, eight hour work week. Annual vacation with pay. Paid sick leave. Life, accident and health insurance and social security available. Recreation: Bowling, tennis, swimming. Opportunities for advancement with eventual retirement pension. For information write Director, Wassaic State School, Wassaic, New York.

WANTED: Man, boy or girl for general farm work. Russell Peters, Sr., Callicoon, N. Y.

CHORE-BOY. Full time men wanted parts service sales. Milking parlors, pipeline systems, vacuum suppliers. Detergents Dumping Station, plastic & rigid. Complete line farm supplies. Box 11, Dryden, N. Y. 13053. Phone VI4-6092.

WIDOWER wants woman or couple for farm and housework. Can have child. Ralph Moreland, Commack, New York.

TWO MEN WANTED: One experienced Dairyman with Guernseys, One experienced in general farm work. Contact Allen King, Hollisong, Pennsylvania or Telephone 215-794-2623.

EXPERIENCED POULTRYMAN—Write Pilch Poultry Farms, P. O. Box 276, Thompsonville, Connecticut.

ROUTE WORK for man or woman with farm background. \$25 or more profit per day to start—larger repeat orders. Write K. H. Inman, Dept. 27C, Box 371, Baltimore, Md.

MAN, single, vegetable farm, tractor experience necessary, year round, good salary, room and board. Reply, Charles De Wolf, 95 De Wolf Road, Old Tappan, N.J.

MARRIED MAN for Guernsey Farm. Experienced. 6 room house, good salary, liberal time off, all privileges. Box 514-CS, Ithaca, New York.

NURSERY WORKERS and tractor operators wanted. Steady work, good pay and housing available. Baier Lustgarten Nurseries, Middle Island, L. I., N. Y.

MARRIED MAN with Horticultural background, preferably with good knowledge of modern blueberry culture. Permanent position with pleasantly surprising opportunity for the right man. Joseph A. Kuznicki, North St., Blandford, Mass.

TENANT FARMER or retired couple on lovely northern Vermont farm for general farm work, for April 1st. Modest salary plus percentage net profit. Sabato, Box 265, White Plains, N.Y.

HONEY

EXTRACTED HONEY—Clover, Buckwheat or Fallflower, 5 lb. container \$2.20; 3—\$5.75; 6—\$10.50. Prepaid 3rd zone. Lang Apiaries, Box A. Gasport, New York.

CLOVER - WILDFLOWER HONEY 5 lb. pail \$2.25 prepaid, 60 lb. can \$10.50 (here). Nicholas Schaefer, Box 88, Lagrangeville, N. Y.

INSTRUCTION

GAME WARDEN, Government Hunter, Forestry, Park and Wildlife Services announce job openings regularly. Prepare at home for outdoor work, good pay, security. Complete information Free! Write North American School of Conservation, 941-BHW North Highland, Los Angeles 38, California.

LIVESTOCK AUCTIONS

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

LIVESTOCK SUPPLIES, EQUIP.

FREE SAMPLE Cattle Ear Tag. Big numbers, low priced. Write today: Cowboy Tag Co., Box 1380, Santa Barbara, Calif.

MAPLE SYRUP

FOR SALE: Pure Maple Syrup in drums. Also gallons, half gallons, quarts. Nelson Widrick, R1, Croghan, N.Y. 13327.

1965 Maple Syrup. Gal.—\$6.75, 1/2 Gal.—\$3.85, Quart—\$2.35 postpaid 3rd zone. Romaine Potwin, So. Royalton, Vermont.

MISCELLANEOUS

SONGPOEMS WANTED! Collaborate with active professional songwriters equally. Share royalties. Songwriters Contact, 1619-G, Broadway, New York 19.

PARTS FOR STOVES—furnaces, coal, oil, gas, electric. Empire Stove Co., 793 Broadway, Albany, New York.

"SIX WILL FORMS" plus "Information by Lawyer," \$1.00, Brugenheimer Publishers, Box 158-N77, Lexington, Mass.

MISCELLANEOUS

STOP ITCHING—Promotes healing of piles; psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. \$1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

QUICK-JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments \$2.95, 12—\$4.95. Money Back Guarantee. Ryter Co., Madelia 20, Minn.

WATCH AND CLOCK repairing books and tools. Free catalog. North American, Box 77-RQ, Fox River Grove, Illinois.

FREE WHOLESALE CATALOG! 100,000 Products. Tremendous Discounts! Taylor Distributors, Newton 14, New Jersey.

LEG SORE SUFFERERS—Send for free book on proven Viscose for relief of pain and aches of leg ulcers, swelling, itch, rash due to deep vein congestion. Works as you walk. Viscose Co., 100 West Chicago Ave., Dept. J.A., Chicago 10, Illinois.

BLUEBIRD HOUSES \$1.50. Saratoga 300 mile zone. Barkersville Fire Co., Middle Grove, N. Y.

12 GOOD OLD VIOLINS For Sale. Kline, Middlecreek, Pa.

YOUR CHURCH OR GROUP can raise \$50.00 and more, easy and fast. Have 10 members each sell only twenty 50¢ packages my lovely luxurious Prayer Grace Table Napkins. Keep \$50 for your treasury. No money needed. Free Samples. Anna Wade, Dept. 9BD2, Lynchburg, Va.

ADULTS AND CHILDREN who want foreign pen pals write to Miss Reba Levine, 174 Pearl Street, Chelsea, Massachusetts.

"BACKWOODS JOURNAL"—Paradox 2, New York 12858. Unusual bi-monthly. \$2.00 year. Sample 35¢.

NEED PRINTING? Business - Personal. State your needs. Bargain Bulletin of Printed Specialties and estimate on your requirements, free. Llanerch Shop, 538-AR Wales, Haverstown, Penna. 19083.

QUALITY PRINTING at Farmer's Prices. Send sample for quotation. Bailey's, 44 Cottage, Bloomfield, Conn. 06002

NOW YOU CAN Determine Value of Farm Property! Simplified "Farm Evaluation Book" leads, step-by-step, to accurate evaluation. Send \$2 to AG Management Systems, Box 351-B, Luverne, Minn.

LIGHTNING RODS—We specialize in complete and economical lightning protection systems. Free inspection or information. Morse-Collins, Inc., 148 Coddington Road, Ithaca, N.Y., member United Lightning Protection Association.

NEW & USED EQUIPMENT

BARN CLEANERS—silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, Southampton, Mass.

"USED CONVEYOR BELTING" Rubber covered—like new, all sizes—all plys. Phone or write: E. L. Ashmus Belting Company, 6038-49th Ave., Kenosha, Wisconsin, OL-2-4596.

BARN CLEANER — Bunk Feeder — Conveyer chain: #458 pin chain, same as used on some cleaners—easily adapted to others. \$1.10 per foot. R. H. Merrill, Waverly, N. Y.

COBEY—FOX—MC—NUFFIELD — Versatile Farm Equipment—Cockshutt parts, new & used. Used machines all kinds. We deliver. Ingersoll Farm Supply Inc., Martinsburg, N.Y. Phone—Lowville 85.

FREE 1965 Parts Catalog for all tractor models and farm implements. World's largest stock of new and used parts. Tremendous savings. Central Tractor Parts Co., Regional Market, Syracuse, or Batavia, New York. Main office: De Moines, Iowa.

WANTED — ALLIS CHALMERS Roto Balers. Brice Creevy, Andover, Ohio.

FARROWING CRATES—with creep panels \$22.95. Free literature. Dolly Enterprises, 180 Main, Colchester, Ill.

FOR SALE: Used 3,000 lb. Burton Feed Mixer. Franklin Supply Co., 86 Industrial St., Rochester, New York.

DEPRESSION PRICES — We sell cheap. Savings to 75% on new, used parts for 200 makes, models, wheel tractors, crawlers. Tremendous catalog. Send 25¢. Surplus Tractor Parts, Fargo, North Dakota.

USED BULK MILK Coolers. Bought - Sold - traded. Varney - Derby, Vermont.

PORTERSVILLE MONTHLY SPECIAL. 4000 gallon 1956 Standard Steel Works Transport—stainless steel inside and out, including cradle, steel skirting. Several farm pick-ups and good selection of single and multi-compartment trailer tanks. Portersville Stainless Equipment Corporation, Portersville (Butler County), Pennsylvania. Telephone (412) 368-2421.

AUCTION

SAT., APRIL 10

COMPLETE DISPERSAL
Potato & Farm Equipment
Potato Harvester

Watch this ad in next month's issue for complete listing.

DRAINS

cellars, cisterns, wash tubs, IRRIGATES - CIRCULATES - SPRAYS

1,001 uses. Stainless shaft. Won't rust or clog! Use 1/8 HP motor or larger . . . 3/4 HP for up to 2,400 GPH; 450 GPH 80' high; or 1,800 GPH from 25' well. 1" inlet; 3/4" outlet. Coupling included free . . . \$7.95
HEAVY DUTY BALL-BEARING PUMP Up to 5,200 GPH . . . \$12.95
Postpaid if cash with order. Money Back Guarantee.
LABAWCO PUMPS, Belle Mead 6, New Jersey

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NEW & USED EQUIPMENT

FOR SALE: Potato picker, Boggs grader, six row sprayer, Hay elevator. Arthur Follett, Galway, N. Y.

WEED HOG TEETH, shoes, bearings, clip, camber teeth loop style weed teeth. McNamee, Burlington Flatts, N. Y.

INTERNATIONAL W-4 Tractor, front-end loader, mint condition, \$1600. J. Hadder, Southbury, Conn. 888-3201.

FOR SALE: Hammermill, good condition, Bagger attachment. Warren W. Travis, Box 192, Leeds, New York.

IN NEED OF Milking Equipment, pipelines—parlor or around the barn parlor stalls—Herringbone—side opening—walk-thru. Transfer station, rigid or plastic. Get our prices. No obligation. Chore-Boy Eastern Factory Owned Branch, Box 11, Dryden, N. Y. 13053. Phone VI4-6092.

ONTARIO DRILLS—All sizes in stock at last year's lower price. Parts for all models of Ontario Drills now in stock and available. Don Howard—R. D. #2—Canandaigua, New York.

125 CRAWLERS AND WHEEL TRACTORS—Wheel tractors, crawler loaders—dozers—winch crawlers and side boomer crawler. Parts and service for Allis Chalmers, Massey-Ferguson, Oliver, Ford, New Holland, Papee, Ontario, Farmhand, Cobey, Farmec, Owatonna, Finger Lakes Trailers, Stone elevators, Freeman, Bush Hog, Howard rotavators, Dunham, Leroy, Wiard genuine points. Cobey life time forage wagons—good selection of used wagons and forage wagons. Large selection of new and used-reconditioned choppers and blowers. Don Howard—R.D. #2, Canandaigua, New York—14424.

30 ACRES OF EQUIPMENT—40 used hay conditioners from \$100 and up. New Holland conditioner—\$500, Myers Mower-Conditioner—\$200, John Deere Crimper—\$150. New Owatonna windrowers—\$3500 complete, used Versatile and Owatonna windrowers. 100 used balers, 20 used flail choppers and forage choppers. 100 rakes including the new styles of rollabar rakes—\$225 and up. Don Howard—R.D. #2, Canandaigua, N.Y.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters—extra low prices. Box S-35, Unadilla Silo Co., Unadilla, N.Y.

ALL PARTS CHEAP—Cletrac AD, BD, AG, BG, HD14, TD14, Cat. 75 Model L AC Plus Straight or Angle Dozers, HYD Dozer Jacks plus Rollers Tracks for D8, D7, TD9, TD18, Ben Lombardo, Reading, Pa. Phone 215-944-7171 or 678-1941.

COMPLETE MECHANIZED FEEDING Tailor-made for your needs VanDale Pioneer in labor-saving silo unloaders and bunk feeding equipment for every size livestock feeding operation. Free feedlot planning help. Get all the facts on efficient, push-button feeding! Write for free brochures: VanDale, Inc., Wayzata, Minnesota. DISTRIBUTORS & DEALERS WANTED. Midwest's Leading Grain Bin Manufacturer is now Offering Top Discounts on Chief Grain Bins, Bulk Feed Tanks, Utility Bldgs. Write: Big Chief of Nebraska, Inc., Grand Island, Nebraska.

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SENSATIONAL APPLE DISCOVERIES—Exclusive patented Starkspur Golden Delicious and famous Starkrimson! New spur-type trees bear years earlier. Also Dwarf Trees for giant-size Apples, Peaches, Pears for backyard and orchards. Stark-Burbank Standard Fruit Trees, Roses, Shrubs. Color-photo catalog free. Stark Bro's. Dept. 30335, Louisiana, Mo.

PEACH, PLUM TREES—low as 20¢. Cherries, pears, apples, nut trees, strawberries, blueberries, dwarf fruit trees. Grapevines 10¢. Shrubs, evergreens, shade trees, roses 25¢ up. Quality stock can't be sold lower. Write for free color catalog and \$2.00 free bonus information. Tennessee Nursery Co., Inc., Box 1, Cleveland, Tenn.

1,000 HORTICULTURAL ITEMS—Evergreen Seeds, Seedlings, Shrubs, Fruit Trees, Plastic Pots, Supplies, Books (Horticultural, Farming, Gardening). Catalog. Mellinger's, North Lima 42, Ohio.

DWARF APPLES for New England, usual varieties: Also more than 100 Tasty Old apple varieties on East Malling IX and VII rootstocks. Converse Company Nursery, Amherst, N. H.

COLORADO BLUE SPRUCE—25 for \$4.00 postpaid. 10 to 14 inch. Heavy root systems. Suncrest Nurseries, Box-J, Homer City, Pa.

BLUEBERRY PLANTS — New Varieties. Heavily rooted. Blueberries as large as grapes. Highly profitable crop. Free planting instructions. Brinton Orchards, R5, Hanover, Pa.

KELLY DWARF APPLES begin to bear heavy crops of giant fruits the year after planting. For orchard or family use. Largest fruit tree nurseries east of the Mississippi. Red Delicious, Yellow Delicious, McIntosh and others, also dwarf pears, peaches, plums, cherries. Specialists in strawberries, blueberries, grapes, hardy English Walnuts, chestnuts, pecans, etc. Choicest trees, roses, shrubs, ornamentals. Complete Spring Garden Guide and Nursery Catalog with 375 color photos Free. Send name and address today. Kelly Bros. Nurseries, 923 Maple St., Dansville, N. Y. 14437.

EVERGREEN seedlings and transplants in leading varieties for Christmas and forest tree production. Assorted ornamentals. Free price list and planting guide. Flickingers' Nursery, Sagamore, Pa.

EVERGREEN PLANTING STOCK—Christmas trees, ornamentals, timber. Free catalog and planting guide. Suncrest Nurseries, Box-J, Homer City, Pa.

ECCLES NURSERIES, INC., Drawer Y, Rimersburg, Penna. Seedlings; Pine - Spruce - Fir - Hemlock. Prices as low as \$9.50 per 1000. Write for free price list, Dept. R.

NURSERY STOCK

BABY EVERGREENS, SEEDLINGS, transplants. Xmas tree stock. List free. Neuner's Nursery, Eichler Road, Pittsburgh 2, Penna.

CHRISTMAS tree seedlings—Grow our seedlings into Christmas trees, windbreakers and ornamentals in a few years, Scotch pine, Norway spruce, Blue spruce and Douglas Fir. \$7 to \$30 per 1,000. Write for price list. Weston's Nursery, Fallen Timber, Pennsylvania.

WILL BUY large amounts (tons) of Blue spruce, White pine, White cedar, non yellowing Scotch, and Red pine boughs, also Norway spruce Cones. Contact us now for next Fall's business, as we plan 12 months ahead. Wagner's Nursery, Monroeville, R.F.D., N. J.

BLUEBERRY BUSHES. Cultivated, latest varieties, producing giant size berries, 4-3 year old bushes \$6.50 postpaid. Order early, supply limited. Brookside Blueberry Nursery, Amherst Road, Amherst, Mass.

WANTED: White pine spruce, Canadian and native hemlock, ten to sixteen feet, paper white birch eighteen to twenty feet, Norway and sugar maple four to five inches caliper, white and pink dogwood twelve to fifteen feet. Prefer specimen trees, properly dug and bagged for spring delivery. Ringwood Company, Ringwood, New Jersey.

NORTHERN grown evergreens—Top quality, low prices. Free price list. Habe's Nursery, Leechburg, Pennsylvania.

20 BLUE SPRUCE 4"-8" \$2.00 postpaid. Cash with order. Write for list: Blue Spruce Nursery, Elnora, N. Y.

EVERGREEN PLANTING STOCK. Highest Quality. Reasonable prices. America's largest growers. Free catalog. Musser Forests, Inc., Box 83-AC, Indiana, Pa.

PLASTIC

PLASTIC THREE CLEAR 9' x 12'—\$1.50. Triple weight Tarpaulin 9' x 12'—\$2.00. Black \$2.50; 9' x 20'—\$3.25, Black \$4.00. Postpaid Catalog Adval. Box 2827J, Paterson, New Jersey.

PRINTING

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SPECIAL TRIAL OFFER. 8 enlarged prints from roll 40¢; 12—50¢. 8 Kodacolor prints from roll \$1.50; 12—\$2.00. Young Photo Service, 62A, Schenectady 1, New York.

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FREE! COLOR VEGETABLE CATALOG featuring fabulous heavy producing hybrid tomatoes, hybrid onions, hybrid eggplant. Also popular varieties cabbage, sweet pepper, hot pepper, lettuce, broccoli, cauliflower. Earliest varieties, widest selection for home and commercial gardeners. These outdoor grown plants are much harder than hothouse or potted plants, and are rushed to you fresh pulled, ready to grow. Our absolute money-back guarantee on every plant. Write today. Piedmont Plant Co., Dept. 201, Albany, Georgia.

STRAWBERRY, Raspberry, Blueberry, Blackberry Plants including—Vesper, Earlidawn, Catskill, Sparkle, Ozark Beauty Everbearing strawberries—Latham, Earlired, Durham and September Everbearing raspberries. Write for free catalog describing 70 small fruit varieties. Walter K. Morse & Son—Bradford, Mass.

LIKE SWEET ONIONS? New Blue Ribbon Assortment 600 sweet onion plants with free planting guide \$3 postpaid fresh from Texas Onion Plant Company, "home of the sweet onion", Farmersville, Texas 75031.

STRAWBERRY—Red Raspberry plants. Fresh Dug. Guaranteed to grow. Eureka Plant Farm, Hastings, N. Y.

HYPONEX. Fast - Action Plant Soluble Food. For farm - nursery - greenhouses. 20 - 20 - 20 \$58.50 per 100 lbs. 7 - 6 - 19 \$45.00 per 100 lbs. Special prices - shipments - prepaid. J. Colarusso, R. 2, Box 330, Avoca, Pa. 18641.

STRAWBERRY PLANTS. State inspected. Early, midseason, late and everbearing varieties. Send for free variety list and prices. C. N. Smith, South Street, East Bridgewater, Mass.

STRAWBERRY PLANTS: Armore; Surecrop; Fairfax; Robinson; Catskill \$3.25—100. Everbearing Superfection: Ozark Beauty \$4.25 — 100. Latham raspberry \$8.50—100. Postpaid. Perkins Berry Farm, RD#1, Box 230, Hudson Falls, N.Y.

CREEPING PHLOX, 12 for \$1.00. Catalog Free. Low direct prices. Planters Nursery, Dept. BA, McMinnville, Tenn.

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Ozark Beauty and Superfection everbearing strawberry plants \$5.00 each 100; Empire, Jerseybelle, Premier \$3.50 each 100. Raspberry plants, reds, Latham, Viking, \$8.50 each 100.

MACDOWELL BERRY FARM
Ballston Lake, N.Y. Phone UP7-5515

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CORNER, intersection 45 and 322 very prominent and highly traveled. What will you offer to long term lease or purchase? Write or visit P. Gardiner, Mullica Hill, N. J.

FOR SALE: Fine Homes, Farms, Camps. Building lots. Peter DePiazza, Dolgeville, N. Y. Phone 429-9909.

INVEST IN FLORIDA. 5 Acres good high dry land; \$50 down, \$20 monthly. Total price \$1495. No interest, owner—W. H. Mott, 7101-13 Street, N., St. Petersburg, Florida.

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FOR SALE or long term lease: Commercial Building 50 x 80 prominently located corner 2 highly traveled roads, near turnpike. Write or visit owner, P. Gardiner, Mullica Hill, N. J.

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DAIRY FARM, 170 acres, 50 milkers, modern barn with electric barn cleaner, 2 silos, milk tank, full line of machinery, 8 room house with all improvements, price \$72,000. Vermann, Cossackie, N.Y.

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WANTED small house, few acres, within 150 miles N.Y.C. Lemmon, 2023 Grove Street, Brooklyn 37, N. Y.

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RUBBER STAMPS: Business Cards, Printing, Labels, Mailbox nameplates, Grafting Kits. Catalog. Champlain Industries, Hinesburg, Vermont.

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CEROW'S Home Made Sausage, famous for years. 4 lb. roll \$2.69 delivered. Cerow's, Clayton, New York.

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SAWDUST AND SHAVINGS in carload lots. Sawdust in bulk truckloads, also baled shavings. Bono Sawdust Co., 33-30 127th Place, Corona 68, New York. Tel. Hickory 6-1374.

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FREE SEED CATALOG. Complete line of Field Seeds, Lawn Seeds and Popping Corn. Carlton Seed Company, 101 Meade Avenue, Hanover, Pa. 17331.

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PECANS, Black Walnuts, English Walnuts, Filberts, Brazils, Almonds, Cashews, Pepper, Cinnamon, Sassafras \$1.25Lb. Dried Mushroom \$3.00Lb. Peerless, 538AA Centralpark, Chicago 60624.

SILOS

SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock-doweled wind-resistant construction. Immediate delivery. Box BS-35, Unadilla Silo Co., Unadilla, New York.

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PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Stanfordsville, New York.

NO HUNTING SIGNS, Mailbox — Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

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SITUATION WANTED

REFINED woman in 30's of Swedish descent with school age children desires work in country as nurse companion or homemaker. Must have separate living accommodations. Box 514-BU, Ithaca, New York.

MARRIED MAN, age 35, with large family desires permanent position on farm or estate in Eastern New York or Central New England. At present position 15 years. Capable of taking complete charge. Best references. Box 514-CZ, Ithaca, New York.

MIDDLE-AGED lady housekeeper, companion, excellent with children, references furnished. Box 514-CN, Ithaca, New York.

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SPARROWS EAT PROFITS! Catch them with new improved trap. Free particulars. Roy Vail, Antwerp 10, Ohio.

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100 Different World Wide Stamps, 50 cents to applicants for profit sharing approvals. Arthur Oehley, Pike St., Hopkinton, Mass.

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CERTIFIED STRAWBERRIES—21 Varieties. Introductory assortment 100 plants—4 all season varieties. Guaranteed. \$4.95 postpaid. List free. Facer Strawberries, Phelps, New York.

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TRUCK * FARM * CAR—Used Tires—Excel. #1—650x16 6 ply \$8.50; 700x16 6 ply \$10.00; 750x16 8 ply \$12.00; 900x16 8 ply \$15.00; 750x20 8 ply \$15.00; 825x20 10 ply \$20.00; 900x20 10 ply \$20.00; 1000x20 12 ply \$25.00; Farm Tire Specialist—Airplane Conversion, New Truck—Tractor Tires also available. Write for complete list. Send check or money order. Sorry no C.O.D.'s. Gans Tire, 1001 Broadway, Chelsea, Mass. Tel: 889-2035. Area Code 617.

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TOBACCO

“TOBACCO”—Smoking (“ready mixed”) or Chewing (sweet). 5 pounds \$3.00 postpaid. Fred Stoker, Dresden, Tennessee.

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WANTED — HORSE DRAWN CARRIAGES, surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

WILL BUY Indian Arrow Heads & Artifacts. Hiram Deeks, Sea Cliff, N. Y.

ANTIQUE CAR to 1941, running or not. Robert Fierro, 865 Main, Paterson, N. J.

WANTED: Old penny arcade machines, vending, gambling, coin pianos, monkey organ, old iron, trade signs, harness maker horses, country store items. Bernard Zipkin, Pinesbridge Road, Ossining, New York.

WINCHESTER RIFLES—old military muskets, any old pistols. Kindly mail a pencil sketch with markings & numbers—your price & telephone. Carol Stein, 204-15 Foothill Ave., Hollis 23, N. Y.

FORD Model “A” or “T”. Box 514-BG, Ithaca, New York.

HORSE BOOKS, Riding, Driving, Coaching, Trotting, Blacksmithing. Carriage, Harness Catalogs; monthly magazines. Ralph Merkle, 219 N. 7th St., Allentown, Pa.

WANTED TO BUY—8 or 10 can side-loading milk cooler. Excellent running condition. Bren Bern Farm—Stepney, Conn. Trumbull 263-0016.

WANTED, gold, silver, platinum, scrap (any form), coins. Information free. Wilmot's, 1067 I Bridge St., Grand Rapids 4, Michigan.

WANTED Antique automobiles, fire engines and trucks. Also parts or books. Peritz, 4350 165 St., Flushing, N. Y.

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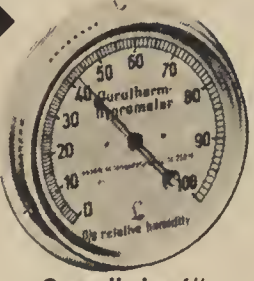
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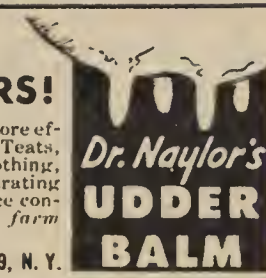
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EXTINCT...

The Country Cook

by Eileen M. Hasse*



PHOTO USDA

"MOTHER, why don't you ever make any of those dried apples anymore?" my teenager asked wistfully.

"Well, the apple tree is gone." My answer came quickly. A wind-storm took away our old "Wolf-river" apple tree, and the high cost of spraying plus the low cost of apples in the market seemed to make it impractical to plant another.

The old range wasn't gone, but it was rendered useless because the woodpile had long since vanished. People just don't hire men to split wood these days, and the grandfathers who used to do it are now holding small but handsome jobs in town.

And that wasn't all that was gone! If it were possible to dry apples in the gas oven, there were none of those dandy little cotton sugar sacks to use for storing the finished product. Besides, country folks can't dry apples any more because attics have become obsolete. Who ever heard of storing muslin bags of dried apples in a utility room?

"It used to be such fun swiping the half-dried apples from the cookie sheet in the open oven," Paul remembered aloud. "Or from those little bags hung in the attic."

"They did make good pies and sauce," I managed. I was wounded. I felt much as I did years ago when I visited the museum and found myself staring up at the tusks of a gigantic Mammoth. I could never forget how insignificant I felt beside that huge creature. The Mammoth is now extinct and so is the bonafide, pot-watching country cook.

I stared at my son, remembering when apple pies were a ritual, made on Sunday morning before church from dried apples in the attic or fresh ones, hand picked from the Duchess tree — not the impersonal pie we defrost these days! There were gooseberry pies

also, made from the berries on the northwest slope near the woodlot. Puckery and full of seeds as well as character, these morsels ate their way into my memory.

Crocks of "fried-down" pork and chunks of meat packed in dry salt or brine were pieces of the country cook's handiwork. Home-cured hams hung from the beams in the unheated basement, and a long row of sausages aged under a salty film of mold that failed to taint her well cured meats. Her generous jar of sauerkraut was an eternal source of nourishment — fried, cooked, raw, or combined with apples, pork hocks or ham bones.

To the country cook that I remember, drying a few apples was the minimum. She prepared the brine for the corned beef that always simmered to an appetizing red, contrasting nicely with the cabbage from the garden. Baking beans was a three-day project on the black, iron range — one day to soak them, a day to simmer, and a day to bake them. The proof was in the eating, hot from the bean pot the first day; cold, the second; and finally, sliced in chilled slabs to be eaten on hot, buttered brown bread.

Memory but sharpens the flavor of the 14-day Pickles, Schnitzel Beans, Forgotten Cake, and 24-hour Salad. Today's packaged products are quite delicious and with the results "guaranteed," they may even be an improvement on the old-time handwritten "receipts." But they can never be quite the same as the home-grown, hand-beaten, seasoned-to-taste product of the industrious country cook. Measuring glugs from the jug, handfuls from the bag, and pinches from the box, this woman was a mammoth in her art!

Yes, the country cook is gone as surely as the Mammoth of old. She is gone the way of the stovepipe, the soap kettle, and the kerosene lamp. A sturdy soul she

was! It is small wonder that we moderns feel inadequate in her shadow.

Feeling a little like a lame duck, I looked up from my reverie to see Bill bounding through my kitchen. "A cake and sandwiches" he announced. "Have to have cake and sandwiches for the school party tomorrow afternoon."

"Did you order my book, Mom?" Paul interrupted.

Today's homemaker must be capable of leaping mental milestones from food to facts to fevers. Modern farm women should be equipped with brains resembling filing cabinets so they can add or subtract from the vast store of mental notes at will.

Mary Jane burst in with, "You'll have to take me to band lessons tomorrow morning." Then she softened her reminder with a look of admiration. "It must be wonderful to be a mother. You're a part of everyone and manage to be yourself, too!"

Suddenly I felt ten feet tall. I quit comparing myself with the mammoth country cook of yesteryears. Dried apples, three-day beans, and home-cured hams didn't matter right now. Is there anything really wrong with buying beans pre-cooked? And suppose the pie is slipped from its commercial carton to be baked according to the directions printed beneath the declaration of the pie's excellence! Today's cook can have a full dinner ready in seven minutes flat! Speed is no longer a luxury; it has become a dire necessity.

Between contacting repair men (now that automation has taken over), and fighting traffic to chauffeur children from school to church and from club to chorus, my hours at the kitchen stove are cut to slivers that I must sandwich in between my own interests.

I straightened as I faced my

children that fateful afternoon. Why should I feel like a weakling, dwarfed by the culinary arts of a past generation? The insignificance that I once felt when I stood beside the Mammoth left me.

My younger children didn't even remember the dried apples, and my daughter had declared me a chief in my tribe! I was chief librarian, secretary to the master, nurse, doctor's aid, buyer of Hasse's better wearing apparel, and dietitian firstclass. I was also chief consultant to the Agriculturist-most-high, back-slapper, booster-upper to the lesser members of the tribe, and toner-downer for those who appeared a bit haughty at times.

"You are Queen of the Kitchen," I told myself. "You are also member in good standing in several other realms." It was, as Mary Jane put it, being "part of everyone and myself, too."

I must agree that never will anything quite match the molasses cookies aged in Grandmother's thick, brown crock or the apples dried in the open wood-range oven. And I miss the fragrance of the large, crusty loaves of bread that no modern can exactly duplicate. There was, indeed, a pungence about the soup kettle of home-grown herbs and hoarded vegetables that haunts me still.

I take off my hat to the hard-working, house-bound country cook, now extinct. She found the tricks of her trade in self-filled crocks, jugs, and muslin bags. Her warehouse was her cellar and her attic.

But I feel sure the next generation will put up the flag for today's rural homemaker. She's no mammoth to be sure, but time may prove she's an octopus who manages more irons in more fires to the benefit of more people. At least, she's more instant! Perhaps that's better than being extinct!



*Loganville, Wis.

VISITING

with
Home Editor Augusta Chapman

Hello, and doesn't it seem good to have the days getting longer? It's not too many degrees above zero as I start this column, but it makes me feel better just knowing that each day the sun rises a few minutes earlier and sets a little later, even though we don't always see it.

The calendar says spring arrives March 21 or 22, but for me, it always gets here March 1! As temperamental and blustery as the month can be, there are bound to be at least a few nice days. Besides, January and February are behind us for another year!

Greetings

This is the first chance I've had to greet our more than 60,000 new Home Department readers. Does that sound conceited, assuming that you all do read these pages? I don't mean it to be, but do sincerely hope you will find here, from month to month, something which will make life more worthwhile and enjoyable for you and your families.

I'd love to hear from you and know what you'd like to have included in our home pages. I hope, too, that you will write whenever you think we may be able to help in any way.

Soon after becoming Home Editor of American Agriculturist, I heard the phrase "A. A. Family" used several times. I confess that it seemed a bit trite to me then. But now, a few years and hundreds of letters later, I realize this isn't too far wrong.

Never a week goes by without at least several people writing to say how many years they have taken the paper, and often their parents and grandparents were subscribers before them. We have a closeness to our readers that the larger magazines could never attain. So, to each new member of our growing A. A. Family, I say "Hi, and a warm welcome."

New Name

When the 1965 New York State Exposition opens on August 31, the department long known as the Women's Division will have a new name. From now on it will be called the Art and Home Center.

"It has been a long time since the Women's Division appealed solely to women," explained Mrs. Helen B. Vandervort, director. "It is truly a family aspect of the Exposition, and particularly so in recent years with the increasing emphasis on the arts and on young people."

Mrs. Vandervort was referring to the Exposition's art and photography shows, the performances by the Auburn Children's Theatre, and to last year's spelling bee.

American Agriculturist, March, 1965

Albany Visit

Again this year I went to Albany in January for the annual meeting of the New York State Council of Rural Women. Looking back on that visit now, two things stand out as highlights. The first, a talk on vocational education by Dr. Joseph R. Strobel of the State Education Department, I hope to tell you about next month. The second was a delightful hour spent at the Governor's Mansion when we were entertained for tea by Mrs. Rockefeller.

This was only my second visit to the Mansion, and I was again impressed with the warmth and charm of this home. Though of course the rooms are large and

rather formal, they are tastefully decorated, comfortable, and give forth a gracious air of welcome. One thing that added to the overall pleasing atmosphere was the delightful arrangements of fresh flowers in every room, and I remembered this had struck me on my first visit also.

The Mansion is more than 100 years old, but for me it has an air of dignity and beauty which no new building could possibly possess. As I wandered from room to room, I felt a surge of pride for this old house that has seen so much of New York State's history. I hope it will be the official home of our governors for many years to come.

Having asked our Council president, Mrs. Jeraldine Platt, to preside at the tea table, Mrs. Rockefeller was free to visit with her guests. Very easy to talk to, she made us feel completely at ease.

This was my first meeting with Mrs. Rockefeller, and I found her to be just as friendly and unaffected as her pictures make you think she is. That nice, wide smile was much in evidence, and "Happy" seems a most appropriate name. I, who am seldom overly impressed with someone being "important," liked her at once and felt certain preconceived ideas and prejudices melting away. After all, who am I to judge another person!

♦♦♦♦♦♦♦♦



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mark about the time you're racing the clock to get spring plowing and planting behind you. And they'll cost you time and money in lost power and wasted fuel because there isn't time for a maintenance job like changing spark plugs . . . unless they are misfiring badly.

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8-18

7089. Jacket of squares in colorful crochet. Make squares one at a time; join. Directions for sizes 32-46 included. 25 cents.

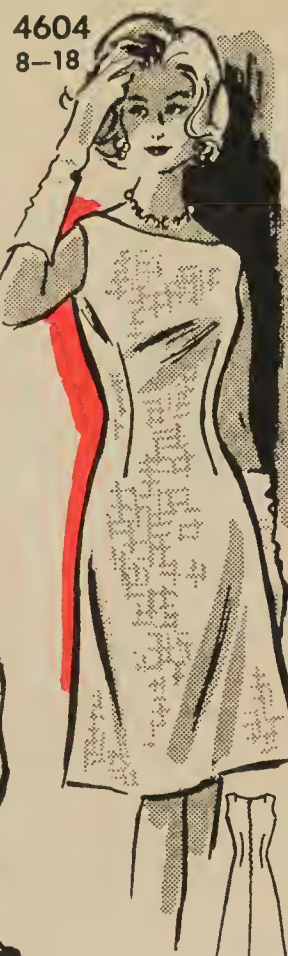
7089

4809. Tab-waisted casual, gored skirt. Printed Pattern Half Sizes 14-1/2-14-1/2. Size 16-1/2 takes 3-7/8 yards 35-inch. 35 cents.

4809
14 1/2-24 1/2



4882
2-8



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AROUND



the HOUSE

Now is a good time to shop for an air conditioner, as prices are usually down this time of year. To help in making your selection, the U.S.D.A. has issued a new publication, "Equipment for Cooling Your Home," (HG-100). Single-room and central-system air conditioners are discussed, as well as fans, evaporative coolers, and roof-spray nozzles.

Single copies may be obtained free by writing: Office of Information, U.S. Dept. of Agriculture, Washington, D.C., 20250. Ask for HG-100.



Revolutionary new broiling system called "No Turn Speed-Broil," is featured in 1965 Westinghouse free standing electric ranges. Meat is placed between heating elements, cooking both sides at once.

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A DO-IT-YOURSELF MANICURE

Some girls have the habit of chewing their nails. The result is not attractive. Other girls let their nails grow until they look like cat's claws!

Your nails require constant care if you want to avoid either extreme.

Treat yourself to a do-it-yourself manicure at least once each week. Many girls combine their manicure with their weekly shampoo.

You'll need blunt-ended nail scissors, a small nail brush, a bowl of soapy water and orange stick for pushing back cuticles, emery board, nail buffer, and non-perfumed hand lotion.

Here's what to do:

Wash hands well and scrub nails with a small brush.

Gently push back cuticles with an orange stick, and trim away any jagged bits of cuticle with the nail scissors.

Use the emery board to file the nails to a medium length and give them a nice round shape. (A medium length, rounded nail is far more attractive than a long, pointed claw.)

Last of all, buff your nails to a glistening finish with the buffer. Then rub hand lotion into your hands, making sure that the skin area around the nails receives plenty of lotion.

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American Agriculturist, March, 1965

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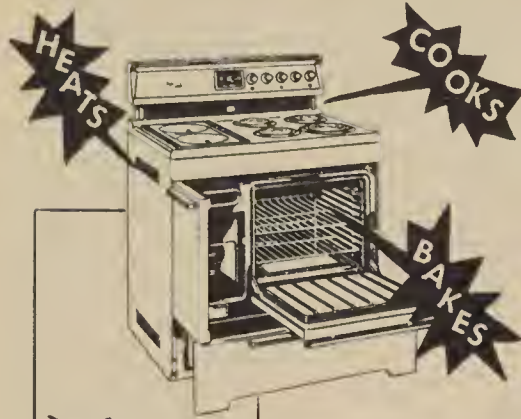
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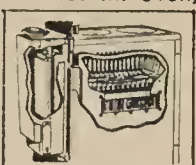
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'Round the kitchen

with ALBERTA SHACKELTON



LENTEN MEALS

Lenten meals need not be monotonous when there are so many different ways to prepare fish, seafood, cheese, and eggs. There are wide choices among these foods, and some of them furnish low-cost dishes. Also, they are high in protein—3 ounces of cooked fish or Cheddar cheese or 3 medium-sized eggs are equal to a 3-ounce serving of cooked beef.

Many main dishes combine several foods from this group, as does the following recipe for Cheese Squares with Seafood Sauce. And the several ways suggested for cooking fish fillets show the variety possible with just one form of fish.

CHEESE SQUARES WITH SEAFOOD SAUCE

(National Dairy Council)

- 3 cups cooked rice
- 1/4 cup chopped onion
- 1/2 cup chopped parsley
- 1/4 cup chopped pimiento
- 1 cup (1/4 pound) shredded sharp American cheese
- 1 1/2 teaspoons salt
- 2 eggs beaten
- 2 cups milk
- 1 teaspoon Worcestershire sauce
- Seafood Sauce

Combine first six ingredients; mix eggs, milk, Worcestershire sauce and blend thoroughly with rice mixture. Pour into a buttered 1 1/2-quart rectangular baking dish and bake in a slow oven (325) about 45 minutes or until set. Cut in squares and serve with Seafood Sauce. Serves 6.

To make Seafood Sauce: Over low heat, blend 2 tablespoons flour, 1/2 teaspoon salt, dash pepper into 2 tablespoons butter. Add 2 cups milk slowly, mix well, and cook with constant stirring until sauce is smooth and thickened. Stir in 1 teaspoon lemon juice and 2 cups canned or cooked frozen shrimp. Reheat for serving.



FROZEN FISH FILLETS

Frozen fish fillets (cod, haddock, sole, ocean perch) are good choices at the fish counter, as they are adaptable to so many ways of preparation. Two pounds will serve 4 to 6 persons. Thaw the fish just enough to separate into fillets. Change the kind of fish and method of cooking, and you can have great variety in your Lenten menus. Be sure not to overcook any fish, no matter what method is used.

BROILED FILLETS: Place thawed fillets skin side down on a greased cooking-serving dish. Brush with salad oil, sprinkle with salt, pepper, and paprika and broil 6 to 8 minutes about 2 inches

from heat or just until fish flakes. Serve with lemon slice or wedge.

FRIED FILLETS: Cut slightly thawed fillets into serving portions, roll in flour, sprinkle with salt and pepper, and fry in hot fat in skillet over medium heat, 8 to 10 minutes or until it tests done, turning to brown both sides. Serve with tartar sauce.

OVEN-FRIED FILLETS: Dip each serving portion into salted milk (1 cup milk and 1 tablespoon salt), then dip in seasoned bread crumbs. Place on a well greased cooking-serving platter and pour melted butter over the fish. Bake 10 to 12 minutes in a hot oven (400).

BAKED FILLETS: Sprinkle thawed fillets with salt and pepper and place in single layer in a well greased baking-serving dish. Cover with onion slices if you wish. Pour over fish 1 cup top milk, sweet or sour cream, or evaporated milk, or a thin white sauce or creole sauce. Bake uncovered in a moderate oven (350) for 20 to 30 minutes or until fish flakes, basting occasionally with liquid in pan.

STUFFED BAKED FILLETS: Lay whole fillets in greased cooking dish, sprinkle with salt and pepper. Top with your favorite stuffing and cover with another fillet. Fasten together with toothpicks, brush tops with melted butter and bake as for regular baked fillets.



MAPLE SIRUP TIME

This is the time of year for maple sirup and maple sugar fans! Never do biscuits, pancakes, fritters, waffles, popovers, and even ice cream taste better than with the first maple sirup of the season. And try serving it hot with these treats!

Don't forget what a good flavor it gives milkshakes, frostings, sauces, frozen desserts like mousse, and baked beans; or how nicely it glazes vegetables (like carrots, sweet potatoes and onions), rolls, and baked ham.

Check grades when you buy sirup to get just the type you like best. In New York State, you will find three grades: New York Fancy, New York No. 1 (most popular), and New York No. 2, which has a darker color and stronger flavor.

If you use lots of maple sirup, buy in large sizes and keep opened containers in refrigerator. To pre-

vent mold and loss of flavor, simmer sirup (160 to 180), fill sterilized glass jars to top and seal. To dissolve large crystals in opened sirup, place jar in hot water and heat.

Maple sugar deliciously flavors and sweetens delicate desserts like custards, tapioca and rice puddings, ice creams, and cake frostings. Maple cream or butter is prized by many as a spread or topping.

MAPLE FRANGO

(Mousse)

- 1 cup maple sirup
- 4 egg yolks, lightly mixed
- 4 egg whites
- 1 cup heavy cream
- 1/8 teaspoon salt
- 1 teaspoon vanilla

Heat maple sirup. Pour slowly, with stirring, into the slightly mixed egg yolks. Cook over low heat, stirring constantly, until mixture is smooth and thickened as for any custard. Remove from heat and cool. Beat whites until foamy, add salt, and beat until light and fluffy. Fold into sirup-egg custard.

Whip cream and fold in and stir in vanilla. Pour into refrigerator trays. When partly frozen, stir well, and continue freezing until firm.

SIRUP-ON-SNOW PARTY

When both snow and maple sirup are available, a "sirup-on-snow" or "maple wax" party provides fun for family and friends. It has long been a traditional part of "sugaring off" in maple country.

If you have a freezer, pans of clean dry snow, patted to make a firm and smooth surface, can be prepared ahead of time. Otherwise, pans may be packed just before the party.

Boil some fancy or first grade sirup (watching it carefully to avoid boiling over or scorching) to a temperature of 230 degrees on a candy thermometer. If you have no thermometer, test sirup as it boils by dropping a little bit on snow. If it stays on top and becomes waxy, remove from heat.

To make the "wax," pour a small amount of hot sirup on the snow. It cools quickly and becomes taffy-like in texture. Lift with a fork and eat immediately before it loses this texture. Repeat the process.

For a "Sirup-on-Snow" party right in your own house, seat your guests at card tables. Provide each table with a good sized metal pan of snow or ice and a pitcher of the hot prepared sirup. Each guest may then stake out his own spot on the snow to make his "wax." Apples, doughnuts, pickles, and coffee are traditional go-alongs in some areas.

American Agriculturist, March, 1965

FENCING IDEAS

by Nenetzin R. White

FENCING IS an important part of many landscape designs today, though some people prefer hedges or walls. It does seem to me that hedges are warmer in appearance, and where feasible I like to use them. But there are situations where fencing is indeed the only answer.

Screening is probably the foremost reason for the use of fencing. Sometimes this is to afford privacy, sometimes to cover up unsightly objects or to keep out strong winds. Woven sapling fences come either in rolls or panels and are very well suited to give privacy.

Panel fences can also be purchased with the saplings or other materials running horizontally. Fine bamboo used with heavier canes running in opposite directions, or in a variety of crisscross patterns, also gives interesting designs. Such fences are tall and tight, but usually cut down air circulation. These sapling fences look best in wooded settings where overhanging trees help to further the rustic feeling.

Board fences can give varying degrees of privacy, and many will provide for air circulation. Louvered, board and batten, and woven panels are a few of the many design possibilities. Some of the modern plastics are most durable and often come in panels. One type of plastic fence even stretches and curves.

The more modern materials would not blend well with a period home, while old traditional fences would be out of place around a modern home. Also, bear in mind when making your decision that if there are very strong winds, it may be necessary to leave spacings in the fence; otherwise, the wind may loosen the posts.

Check Zoning Codes

If your fence is to be very high, it may be more interesting to use lattice or openwork at the top. It also will allow more air circulation. Incidentally, many areas with zoning codes are very specific about fences. You should check

assemble and are not too difficult for the average home owner to install. For smaller places, this same type of fence made out of boards is in perhaps better feeling and scale.

Chain-link wire fences are expensive, but are the best to keep children and animals within your grounds. These may have to be extended into the ground for burrowing or digging animals. For esthetic value, you can often use a board fence and attach wire to the inside if holding pets or kids is a problem.



A picket fence can add to the overall attractiveness of your home.

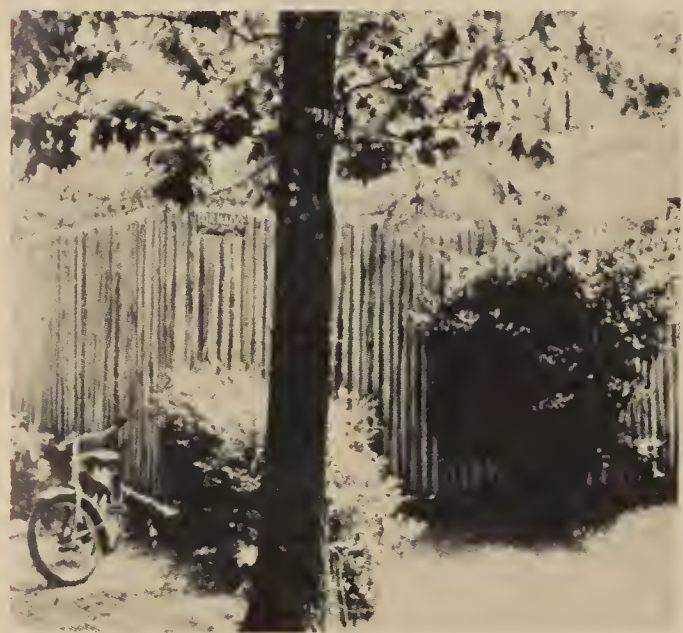
Picket fences are traditional and attractive, the commonest being flat pickets with pointed ends, a la Huck Finn. The space between the pickets is one half the width of the picket. These can be purchased by the picket or even in assembled sections from your lumber yard.

These fences vary greatly, from boards six inches wide to round or turned pickets. This latter fence is purely decorative and is often placed between stone or brick piers.

Plantings

All fences are softened and enhanced by various plantings, and since we usually think of vines with fences, let's discuss them. Fences are most attractive with a few vines, but don't let rampant growth completely cover or overpower a pretty fence. Plain wire fences, on the other hand, can stand more cover. Vines to consider for "rambling" over fences are Bittersweet, Virginia Creeper, Hall Honeysuckle, Silver Lace Vine, or just a grapevine.

Climbing and Rambler roses are well supported by a fence. Also, use your fence to pleach or train



This type of fencing gives privacy and is excellent for keeping children within bounds.

with your local zoning officer to see what heights and types are permissible in your area.

Post and rail fences are "country" in feeling and usually belong around rather spacious grounds. These can be purchased ready to

against it a Firethorn (pyracantha), a Forsythia, a dwarf fruit tree, or such. And your new fence will make an excellent background for a perennial bed, for choice specimen flowering shrubs, or for evergreens.

American Agriculturist, March, 1965

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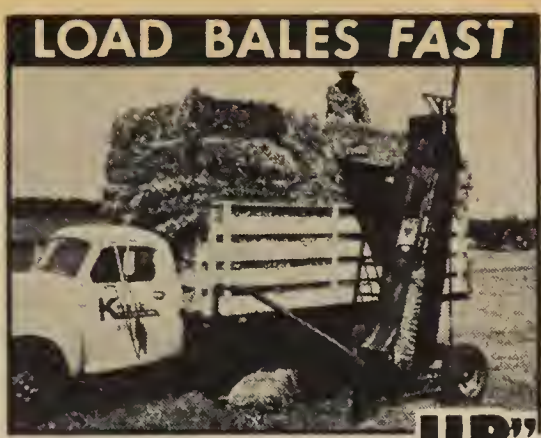
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Ground driven—pops up bales as fast as you want to drive.

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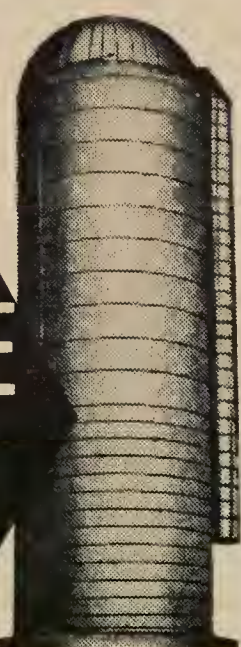
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Clevis-Type Drawbars

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Postpaid planting time. No C.O.D.

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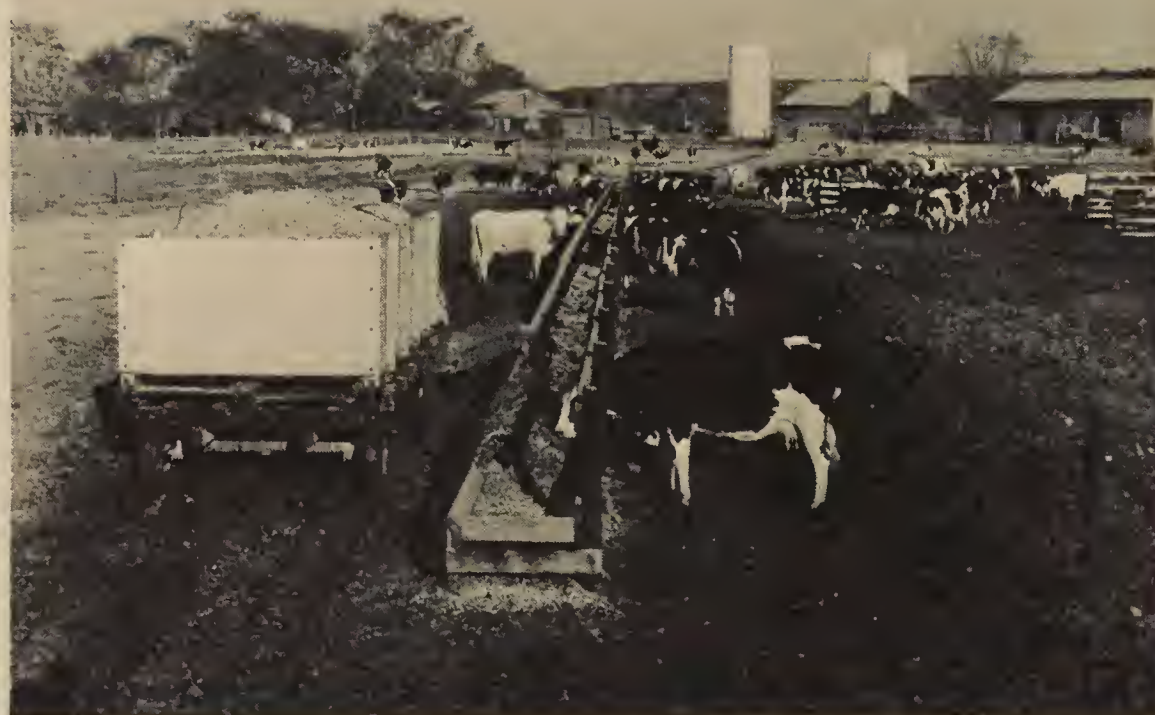
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OUTDOOR FEEDING PLANS

By R. B. FURRY*

HERE ARE some of the alternatives available to dairymen for outdoor feeding systems:

A. Types of Arrangements

1. A movable feeding arrangement of multipurpose wagon, or feed bunks mounted on skids or wheels.

2. A permanent setup located near a silo and on a paved area.

3. Feed bunks can be open to cut costs, or roofed to prevent damage to feed and also to make the bunk usable the year around.

4. Fence-line bunks can be filled from a self-unloading wagon, but the cows have access to only one side. A two-sided bunk is built wider, but only has to be one-half as long as a fence-line type bunk to feed the same number of animals.

5. Movable feed bunks in an open unpaved lot have to be shifted now and then to prevent accumulation of manure and to overcome mud problems.

B. Construction Recommendations

1. If you build a permanent type bunk, at least pave a 4-inch thick concrete strip 8 feet wide on each accessible side of the bunk. This provides a firm surface if you are going to drive by to fill the bunk or scrape the manure away with a tractor-mounted blade.

2. Where wood is to be used, use only non-toxic pressure preservative-treated wood for exposed parts.

3. Use galvanized steel for roofing that has a heavy zinc coating, because the rust-free life of the sheet depends on the thickness of this coating.

4. Use concrete for paved areas.

5. Use bolts at joints where there is likely to be a lot of twisting, or to anchor parts down.

6. Use knee-braces to make the structure rigid so it will stand up

against the pounding it's going to get from animals.

Plans for farm structures of the types mentioned, as well as for structures of other kinds, can be obtained directly from your county agricultural agent or the Extension Plan Service, Riley-Robb Hall, Cornell University, Ithaca, N.Y. These plans are also available to persons in other states of the Northeast. Plans numbered FP199, FP230, FP231, and FP299 are free; the others listed are 25 cents each.

Plan Number	Description
Permanent Roofed Feeders	
5854	Fence-line Feeder — cattle feed on one side only
5862	Wide-roof Feeder (26' 4") cattle on both sides
5864	Narrow-roof Feeder (25') cattle on both sides
5939	Cattle Feeding Shelter for self-unloading wagon or auger conveyor
Open or Movable Feed Bunks	
5837	Mangers and Feeding floors for dairy and beef cattle
5925	Metal-roofed movable feed bunk mounted on skids.
FP 230	Concrete feed bunk, with auger conveyor
FP 231	Round-bottom concrete feed bunks — 4 idea designs
Stock-Watering Tank	
FP 299	Reinforced concrete watering tank 2'6" x 5'0" x 10'0"
Mineral Feeder	
5844	Weather-vane-type mineral feeder made from barrel and old auto front wheel and axle
Concrete Paving	
FP 199	Barnyard Paving Details

*Department of Agricultural Engineering, Cornell University, Ithaca, N.Y.

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Give More **WEIGHT**
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6 h.p., 6" x 16" rear tires, 2 power ranges, geared reduction steering, easy-lift tool lever, extra-heavy construction throughout, full year warranty. Briggs & Stratton "Easy-Spin" starting. Single clutch pedal with automatic brake gives extra safety. Tractor only \$369. Unequaled 32" full-floating rotary mower, only \$105. Also big 9 h.p. Model S-23 at \$484. Many low-cost tools. "SINCE 1935." See your dealer or write for color folder. (Prices f.o.b. Ravenna.)



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American Agriculturist, March, 1965

AA FOUNDATION AWARDS

THE FOLLOWING LIST includes the names of the schools who reported their 1964 American Agriculturist Foundation Achievement Award winners. We are always sorry not to be able to list all the schools who made the Award, but not all of them report the names of recipients.

Connecticut

Rockville High Calvin Myers

Maine

Caribou High Gene Theriault

Maryland

Boonsboro High Barbara Finrock

Brooks High, William White

Prince Frederick Archie Rice

Mt. Airy High Anne Guynn

North Harford High, Norman Cochran

Pylesville, Carolyn DeBerry

Southern High, Oakland

Massachusetts

Bristol Co. Agricultural High, Segreganset Daniel J. Medeiros

Jamaica Plain High James W. Howard

N.S.A. Vocational High, New Salem Carolyn Rice

Palmer High Carol Czepiel

Williams High Lawrence D. Tonini

New Hampshire

Coe Brown Academy, Linda DeButts

Northwood, Kathleen Ann Laplante

Merrimack High Edna E. Piper

Orford High, Patricia Jones

Oyster River High, Durham

New Jersey

Jonathan Dayton Regional High, Charles Roll

Springfield, Claudette Lappin

North Plainfield High Ann Volkema

Sussex High

New York

Afton Central Howard Sherman

Akron Central Joan Sawdy

Alton Central James Flint

Altona Central Eunice Hillsgrove

Andover Central Judy Ann Bushey

Andrew S. Draper Robert Goodridge

Central, Schenectady Eileen Russ

Arede Central Gary Sergel

Avoca Central Gayle Ann Mattie

Ballston Spa High Maureen Peck

Barker Central Rose Kimble

Belfast Central Kathleen Jean Haskins

Belleville Central David Fulton

Berne-Knox Central, Louise Keppler

Berne Franklin Bienick

Boonville Central Shirley Baker

Bridgewater Central Raymond Corbin

Brookfield Central Leda Caswell

Canton Central Vivian Campbell

Cato-Meridian Lawrence Snow

Central, Cato Mary DeVaul

Cazenovia Central

Cassadaga Valley Central, Donald Anderson

Central, Sinclairville

Central Square Central, Adrian Burdick

Charlotte Valley Bruce Mikeals

Central, Davenport Judy Bechard

Chazy Central David Harrington

Cincinnati Central Pamela Morreale

Clinton Central Richard H. Dahl

Clymer Central William Cash

Delaware Academy Richard Burdick

& Central, Delhi Vaughn Sherman

DeRuyter Central Judith Goehner

Dryden-Freeville Central, Dryden Carol Lashua

Edwards Central Conrad Frennier

Ellenburg Central, Dianne LaBarre

Ellenburg Depot

Ellicottville Central Wayne Houghton

Central, Falconer Central Ronald Ball

Fayetteville-Manlius, Manlius Tom Erkenbeck

Fillmore Central James Wolfer

Fonda-Fultonville Linda Smith

Central, Fonda Robert Underhill

Franklin Academy & Central, Prattsburg Edward Palidar

Friendship Central Patricia Kulis

Genoa Central Stanley VanHoesen

Gilboa-Conesville Joyce Germond

Central, Gilboa Robert Kline

Goshen Central Henry E. Ketcham

Greenville Central Harlan Warriner

Greenwood Central Donna Krusen

Groton Central John Benson

Harpurville Central Garth Winsor

Central, Myrtie Gardner

Hartford Central

Henderson Central
Heuvelton Central
Homer Central
Interlaken Central

Jamesville-DeWitt High, Dewitt
L. A. Webber High,
Lyndonville
Lake Shore Central,
Angola
Leonardsville
Central

Lowville Academy
& Central

McGraw Central

Mayville Central

Medina Central

Mexico Academy &
Central

Milford Central

Moravia Central

North Syracuse Central

Nunda Central

Owen D. Young Central,
Van Hornesville

Panama Central

Paul V. Moore High,
Central Square

Penn Yan Academy

Peru Central

Phelps Central

Rensen Central

Roxbury Central

St. Johnsville
Central

Saranac Central

Schoharie Central

Sherburne Central

Sidney Central

South Kortright
Central

South Lewis Central,
Turin

Stockbridge Valley
Central, Munsville

Trumansburg Central

Truxton Central

Unatego Central,
Otego

Van Eiten Central

Vernon-Verona-Sherrill
Central, Verona

Walton Central

Warsaw Central

Warwick Valley
Central, Warwick

Washington Academy,
Salem

Waterville Central

Waverly High

Whitney Point
Central

Windsor Central

Worcester Central

Pennsylvania

Berlin Brothersvalley
High

Berwick Area High

Cowanessque Valley,
Westfield

Damascus High

Fort Le Boeuf High,
Waterford

Gettysburg High

Harmony High,
Westover

Juniata Valley High,
Alexandria

Northwestern Beaver
Co., Darlington

Pequea Valley,
Kinzers

Oley Valley High

Red Lion Area High

Saegertown Area High

Solanco High,
Quarryville

Sugar Valley Area,
Loganton

Susquehannock High,
Glen Rock

Townville High

Rhode Island

Central High,
Providence

Coventry High

Vermont

Brattleboro Union
High

Chester High

North Troy High

Peoples Academy,
Morrisville

Richford High

Vergennes High

Joan M. Vorce
Edward Bullock
Lorraine Rice
Charles Pell
Linda Slack

Frances Hayduk

Vance Hedley

Diane Crouse

Ruth Sullivan

William Brown, Jr.

Tom Taranto

Sandra Rothra

John Farrell

Douglas E. Runions

Cathy Robinson

David Morse

Karen Nye

Bruce Young

Carl Willett

Betty Archer

Joan Manwaring

Ann Stearns

Janice Stewart

Leslie Kisser

Clifford Day

Robert Jones

Lynne Cole

Kcith Suits

Mary Sorrell

Douglas Cornwell

Susan Ladue

Avery D. DuMond

Donald Doig

Bonnie Riddell

Charles Young, Jr.

Nancy Ann Lamb

Lee Scott

Nancy Bush

Ruby Bartholomew

Milton Georgia

Mary Wood

Paul Jasiewicz

John Gabel, Jr.

Dwight Gay

Stephen Morgiewicz

Gary Dunham

Ruth Swanson

David F. Schweiger

Harold Brewer

Constance A. Ripperger

Theron Henness

James M. Ringler

Marian Frederick

William A. Douglass

Sandra Spaulding

Linda Lewis

Linda A. Weikert

Alden Beck

Daniel Knode

Lewis Black

Donald L. Ranck

Rose Ann Stoltzfus

Judy Snyder

Dale E. Rexroth

Colleen Peters

John Frey

Thomas H. Karchner

John Myers

Raffael Aversa

Roy Ehrhart

Dale Bowman

Deidre Albertson

Robert Allis

Sandra Swartz

Frederick Bestwick

Gary Harris

Harold Griggs

Arnold Cota

Gary Cramer

Phyllis Sheltra

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Every cow in your herd gets *split-second* protection from overmilking when you install PERFECTION. For it's the only *true* automatic milker, the only milker that shuts off vacuum when milk flow stops... like a calf nursing.

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Try new PERFECTION "Stop Watch" milking, pipeline or pail model. You can add the automatic lid to your present PERFECTION equipment. In fact, the PERFECTION automatic lid is now interchangeable with most milkers, makes your milking *truly* automatic.

See all-new PERFECTION milking equipment at your PERFECTION dealer. Or use the coupon for information on pipeline systems, portable transfer systems, milk-house pipeline panels, vacuum pumps.

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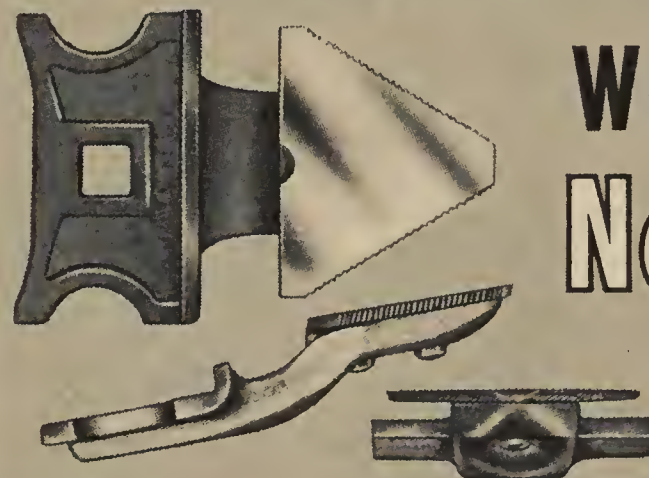
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Number of cows we milk..... ☐ I am a student.

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WHITAKER'S New Shear Fingers

Will OUT-CUT and OUTLAST any guard

Continuous Cutting Action

• **STREAMLINED.** Tip of knife section reaches slightly beyond tip of Shear Finger to "gather" crop and assure continuous cutting action. Three times longer life than conventional guards.

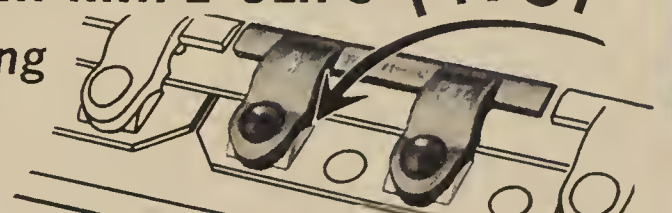
• **INTERCHANGEABLE.** Advanced Shear Fingers will replace practically all standard guards. Your dealer has replacements to fit your machine.

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WHITAKER MOWER KNIFE CLIPS PIVOT

For perfect cutting adjustment and Longer Wear!



First major design improvement since your grandfather's time. Reduces costly, time-consuming replacements. Just tighten to restore proper cutting action. Patented adjustable feature maintains perfect alignment and precise clearance up to 1/4".

Whitaker Mower Knife clips give you four times more bearing area... 20 times more wear. No more knife back buckle. Self-cleaning design ends "choking up" in arches. A new world of mowing efficiency. Install them yourself.

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JIM HALL



GORDON CONKLIN



AUGUSTA CHAPMAN



BOB CHRISTIANSON



AL HOEFER JR.

THE AA-RNY FAMILY

In 1946, A. James Hall (see picture), better known as Jim, joined the editorial staff of American Agriculturist.

In the years that Jim has worked for us, he has served in almost every position on the publication. When anyone had a difficult job to be done or a problem to be solved, he would say: "Let Jim (not George) do it!"

When Curry Weatherby retired as circulation manager, the Board of Directors appointed Jim to succeed him. Maintaining the circulation of a big publication and directing the work of 50 field representatives makes for big responsibility, but Jim did it all and did it well, at the same time directing the paper itself as general manager, the title given to him when I retired as president and editor. More recently, the Board has given him the title of publisher. He is directly responsible to the Board, and through them to the American Agriculturist Foundation, and thereby to you, the subscribers.

Almost from the start with American Agriculturist in 1922, we saw the great advantage of joining the two papers. It has taken all these years and American Agriculturist's growth and success to make this dream come true, but it also took the leadership and business ability of Jim Hall to bring the transaction to a head. He did almost all the work in negotiating the transaction with Mr. William Berghold, publisher and editor of The Rural New Yorker.

In talking about the circulation of American Agriculturist, I should not omit comment about the splendid service which our field representatives have given under the able leadership in New York State of Harry Ennis; in the New England states of Roy Thompson, recently succeeded by Donald Russell. I'd like to mention, also, the lifelong service of Victor E. Grover, who has kept accurately and well the circulation records of American Agriculturist and the list of subscribers. Vic is another dedicated employee of the publication which he loves.

When Hugh Cosline retired as editor, he was succeeded by Gordon Conklin (see picture) in 1962. Gordon was a farm boy, with all that means in understanding farmers and their problems. He is a graduate of the New York State College of Agriculture, and was assistant county agent in Cayuga County, New York. The farm press of the United States has had some great editors; I am privileged to know Gordon Conklin well and I predict that with his personality, character, and ability, he will lead American Agriculturist editorially to make it second to none in the farm press of America.

In addition to Gordon's practical, down-to-earth knowledge,

and ability as a writer and editor, he adds a spiritual touch to the paper, something that is sadly needed in these hectic and insecure times. Watch this man! He is completely dedicated to your service.

Associated with Gordon in the editorial department is Albert Hoefer, Jr. (see picture), production manager, who is proving himself invaluable in helping Gordon with the innumerable tasks of getting out a great publication.

Robert C. Christianson (see picture) just recently joined the paper as advertising manager, coming to us with long successful experience in the advertising field. A brief biography about him appears in another place in this issue. Working with Jim Hall and the Katz Advertising Agency, Bob will raise the advertising lineage and income enough to keep us giving you a top-notch paper.

When we moved the offices of American Agriculturist to Ithaca in 1934, the late Mrs. Grace Hockett was succeeded as Home Editor by Mrs. Mabel Hebel, who built the Home Department into one of the best in the farm papers of America. After Mrs. Hebel retired, Mrs. Augusta Chapman took over the job, and continues the high standards set by her predecessors.

All members of the staff have worked so well together that they have grown to have deep respect for one another, which makes them indeed — as they call themselves — the American Agriculturist-Rural New Yorker family. Newer and younger men are taking over. They will make the changes necessary to meet the rapidly-changing times. Like those who preceded them, all are completely dedicated to the paper and to YOU, its readers. (See also article "People - The Key to Success" elsewhere in this issue.)



MARCH



The wind still howls on the hills, snow is piled along the fences, and there are short spells of bitter cold. Winter lingers, reluctant to give up its icy hold.

But the days are fast growing longer. The sun is strong on our face on the south side of the barn. And there is that beautiful spring light in the western sky at sundown — all promises that spring is just around the corner, renewing our determination and our hopes that no matter what has happened in the past, the present and the future are ours... and this year is going to be the best ever!

PAYING OUR PASSAGE

Ever since I was a boy, I have held the belief or philosophy that no one has much excuse for living unless he does something to "pay his passage." There are many ways of doing this... the sacrifices parents make for their children... the patience of teachers in helping children to learn... the dedication of doctors and nurses in the healing of the sick... the spiritual aid which ministers of God give every day... and the giving of comfort and support by all of us to those who are ill or mourning — in fact anything that will make the Great Road a little easier for those who travel with us.

So I just can't refrain from mentioning again the constant flow of letters from readers of my book, JOURNEY TO DAY BEFORE YESTERDAY. Apparently it helps people to forget their troubles for a while and remember the happy days of their youth.

Readers say:

"Finished your book in 2 nights!"

"We read it aloud in the family."

"Enclosed is my check for two more copies for friends."

"It could very well be the story of my own life."

"I was lonesome when I finished reading it, sorry there wasn't more."

"There are chapters in your book that to my mind rival Huckleberry Finn. It sparkles with chuckles and laughs."

"As a boy, I lived on my grandfather's farm, so I remember well experiences that you describe."

This book can be purchased through American Agriculturist, Department Book, by sending your check or money order for \$5.95.

EASTMAN'S CHESTNUT

The patter of tiny feet was heard at the head of the stairs. Mrs. Kinderby raised her head, warning the members of the bridge club to be silent.

"Hush!" she said softly, "the children are going to deliver their goodnight message. It always gives me a feeling of reverence to hear them. Listen!"

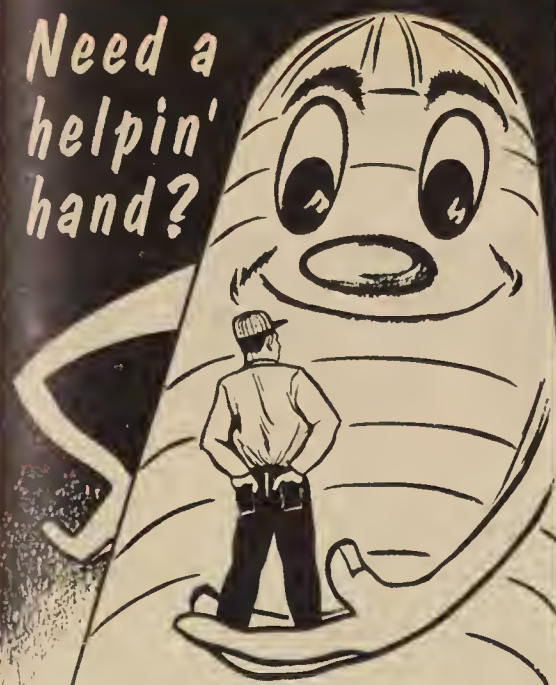
There was a moment of tense silence then:

"Mother," came the message in a shrill whisper. "Billy found a bedbug! What'll he do with the damn thing?"



ED EASTMAN'S PAGE

Need a
helpin'
hand?



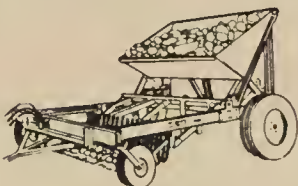
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BESTLAND ROCK PICKERS!



MODEL 876—unloads into truck 8' swath—4000 lb. hopper capacity—adjustable tine spacing—4 wheels and tires.



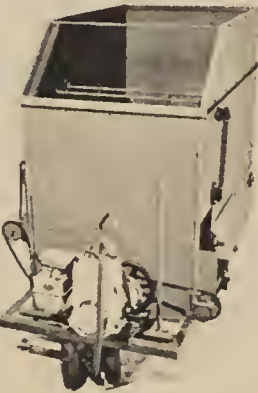
MODEL 624—complete with slide pull tongue to pick beside tractor—6' picking swath—4 tires and wheels.

Write: **VIEL MFG. CO.**
Box 632 Billings, Montana

THE "600" SELF PROPELLED, SELF UNLOADING FEED TRUCK

Now you can save half the time or more feeding ensilage or green chop automatically. No more do you need to use a fork! Unload from the silo or forage wagon directly in the feed truck and power will do the rest.

Reversing two speed transmission. Low speed for feeding—high speed for returning quickly to the silo! Feed can be windrowed or piled in front of each animal. The short turning radius makes this unit very maneuverable and easy to operate.



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VERNON, NEW YORK Phone 829-2305

Progressive farmers

CUT COSTS—BOOST YIELDS with

PLASTIC FILMS

- **MULCHING** . . up to 50% greater crop yield
- **ROW COVERS** . . extend growing seasons
- **GREENHOUSE GLAZING** . . Reduce cost, increase yield

For free booklet on how **PLASTIC FILMS** work for YOU write:

BENNETT PLASTICS
Box N, Syosset, N.Y. 11791

AA SERVICE BUREAU

SELLING HAY?

The New York State Department of Agriculture & Markets is again cautioning all farmers selling hay or straw to be sure they are doing business with a licensed dealer.

Dealers who are licensed by the Department of Agriculture & Markets are bonded for the seller's protection. If you are not sure that you are doing business with a qualified dealer, you can call the Division of Marketing, Department of Agriculture & Markets at Albany, for immediate information.

In any case, ask for payment in cash. We have handled numerous complaints that some hay dealers' checks have bounced for lack of sufficient funds. We have also had complaints against dealers who have promised to return later with payment, but who have failed to return. Sometimes they will pay for the first load or two, but not return to pay for the last.

This precaution also applies to the sale of other farm products to dealers, brokers, commission merchants, and net-return dealers, all of whom should be licensed and bonded.

VACUUM CLEANER

"Your paper has done a lot to help people. I wonder if you can do anything for us."

"A man called on us with a vacuum cleaner. He had a deal that we could get \$25.00 off a cleaner for everyone we could interest in buying. He told us we would have no trouble and could pay for it easily, and he talked us into trying it."

"However, they had already covered the whole countryside and we could find no one who was interested, so we asked them to come and get the cleaner as we could not pay for it, without selling someone else. They finally sent a man to pick it up; we got a receipt and thought that was the end of it. But they are still trying to collect and have a judgment against me."

Our reader signed a legal contract which stated: "This sale is final and no refunds will be made." It also stated: "Buyer acknowledges having read this contract and receipt of a copy thereof signed by the seller."

As we have warned before, promises made in this so-called "referral" method of selling seldom materialize. They are not included in the contract and so are not binding on the company.

Inquiries and letters to the Service Bureau should be addressed to Service Bureau, American Agriculturist and the Rural New Yorker, Box 367, Ithaca, New York.

It happened so fast!



Edward Poirier of No. Bangor, N.Y. and his son were working in the corn field. The field chopper jammed—Mr. Poirier tried to clear it—his jacket sleeve caught—instantly he was dragged into the machine. His son rushed to turn off the machine, then got help. Mr. Poirier's life was saved but the badly mangled arm had to be amputated.

\$2610.00 check for loss of arm and hospital-medical benefits from two North American policies was delivered by local agent Paul Brisson of Massena, N. Y. This is Mr. Poirier's note of thanks:

"Thank you for your prompt and courteous settlement of our claim. I strongly urge everyone to take advantage of your insurance coverage because it affords a lot of protection at a cost everyone can afford. No one knows more than I do how this money came in handy, especially when you are not prepared for such a mishap."

OTHER BENEFITS PAID

James H. Scott, Belmont, N.Y.	\$ 142.84	Gertrude Brenenstuhl, Petersburg, N.Y. \$ 450.00	
Kicked by horse—injured head		Auto Acc.—injured back, shoulder	
Beverly J. Monk, Richford, N.Y.	176.28	Robert E. Williams, Gouverneur, N.Y.	154.28
Kicked by cow—injured hand		Cutting wood—broke toe	
Marlon C. McNallie, Randolph, N.Y.	226.31	Milton D. Lape, Cobleskill, N.Y.	153.57
Fell from ladder—cut hand, inj. wrist		Cut by power saw—injured thumb	
Betty Stankey, Conewango Valley, N.Y.	356.72	LaVera Wood, Alpine, N.Y.	202.01
Fell in bathroom—injured shoulder		Fell—fractured wrist	
Alice Hunt, Genoa, N.Y.	779.14	James E. Lynch, Prattsburg, N.Y.	403.00
Auto Acc.—multiple cuts & bruises		Auto Acc.—cut lip, broke teeth	
Guy Randolph, Moravia, N.Y.	1810.00	William C. Fedun, Sr., Calverton, N.Y.	410.00
Caught in PTO—injured hand, broke wrist		Slipped picking up can—injured back	
David N. Crowell, Cherry Creek, N.Y.	594.53	Dorothea Hendrickson, Bridgehampton	247.24
Fell from silo—injured back		Fell on ice—fractured wrist	
Katherine M. Cooper, Kennedy, N.Y.	1241.23	Fred W. Sprague, Roscoe, N.Y.	242.93
Fell downstairs—broke leg		Truck Acc.—bruised knee, cut eye, ear	
Roger Sterling, Pine City, N.Y.	1233.80	Benjamin Andrews, Newark Valley, N.Y.	242.86
Fell off gate—badly injured knee		Crushed by cow—broke ribs, inj. back	
Sarah Pittsley, Norwich, N.Y.	367.09	Georgia Gould, Trumansburg, N.Y.	220.17
Hot grease spilled—burned foot		Caught in beaters—injured hand	
William E. Ward, Bainbridge, N.Y.	340.00	Gordon R. Saville, Hudson Falls, N.Y.	423.28
Auto Acc.—injured hip, nose		Auto Acc.—injured spine	
Velma R. Buckley, Saranac, N.Y.	637.73	Bernard E. VanOpdorp, Clyde, N.Y.	471.50
Auto Acc.—multiple injuries		Fell downstairs—broke shoulder	
Flossie W. Brown, Cortland, N.Y.	435.92	Donald R. Glor, Attica, N.Y.	351.85
Fell downstairs—broke arm, cut scalp		Fell from scaffold—injured back	
Dorothy Johnson, Delhi, N.Y.	347.13	Rudolph Aze, Branchport, N.Y.	260.00
Kicked by cow—injured hip & shin		Thrown from tractor—broke arm	
Jesward Diodato, North Collins, N.Y.	687.27	George Linder, Nelson, Pa.	1415.00
Fell off bean picker—inj. back, shoulder		Auto Acc.—broke elbow, ribs, cuts	
Bernard Wenskoski, Fort Johnson, N.Y.	364.28	Howard L. Clink, Rome, Pa.	757.10
Auto Acc.—burns & bruises		Fell off roof—injured back	
Alvira E. Blair, Byron, N.Y.	630.00	Robert E. Wetmore, Union City, Pa.	139.28
Hit by car—broke leg, shoulder, ribs		Fell from ladder—fractured arm	
Harry C. Burton, Dolgeville, N.Y.	812.34	John Sopko, Jermyn, Pa.	150.00
Fell from ladder—fractured shoulder		Attacked by bull—multiple bruises	
Margaret Wilson, Chaumont, N.Y.	307.00	Nicholas Danyluk, Great Meadows, N.J.	906.79
Auto Acc.—injured head, knee		Fell from truck—inj. shoulder, knee	
Roy Wright, Lowville, N.Y.	407.16	Alvin Griggs, Cranbury, N.J.	612.45
Truck Acc.—multiple cuts & bruises		Truck Acc.—injured thigh	
Thomas Hayduke, Madison, N.Y.	292.86	Frank Netherby, Swedesboro, N.J.	239.00
Thrown from wagon—injured knee		Fell—injured back	
Clare Ladd, Jr., Henrietta, N.Y.	260.00	Antalena E. Jarvis, Northampton, Mass.	838.03
Stepping off concrete stoop—inj. ankle		Fell—broke both arms, bruises	
Herman Fredericks, Fort Plain, N.Y.	408.49	Harry Roach, E. Corinth, Maine	268.80
Fell carrying bales—injured back		Run over by baler—rib fractures	
Earl Felshaw, Remsen, N.Y.	326.60	Douglas W. Hallett, Carlbou, Me.	170.00
Thrown from truck—cut scalp, inj. back		Truck Acc.—fractured wrist	
Robert E. Ramsden, Marietta, N.Y.	233.57	Emily C. Adams, Charlestown, N.H.	369.00
Auto Acc.—injured face		Slipped & fell—injured back	
William Lyon, Sr., Phelps, N.Y.	429.50	Edith Daniels, Hillsboro, N.H.	954.30
Stepped off tractor into hole—inj. knee		Slipped & fell—fractured hip	
Stephen Uszenski, Slate Hill, N.Y.	342.78	Robert W. Jackman, Vergennes, Vt.	250.70
Slipped & fell—injured back		Kicked by heifer—injured back	
Darwin Ames, Medina, N.Y.	125.34	Roy L. Brown, Jacksonville, Vt.	110.00
Kicked by cow—broke jaw		Hit by stone boat—broke leg	
Harold F. Johnson, Mexico, N.Y.	111.42	D. Francis Howrigan, Enosburg Falls, Vt.	103.57
Fell on plow—back injury		Fell on ice—broke wrist	
Earl Briggs, Mt. Vision, N.Y.	518.36	Dorothea Fisk, Sharon, Vt.	136.00
Cutting wood—cut hand, tendons		Pinned against tractor by rake—	
		Inj. leg & arm	

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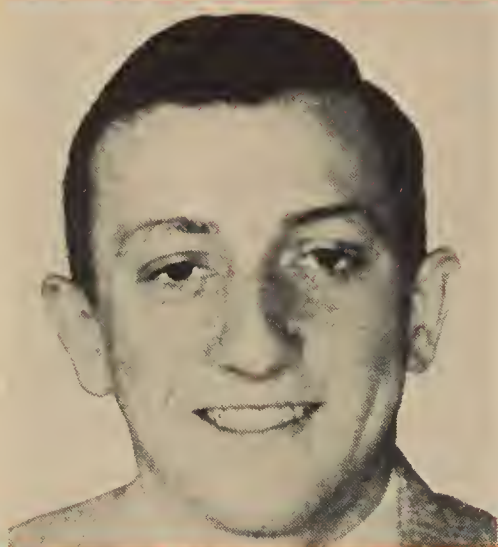
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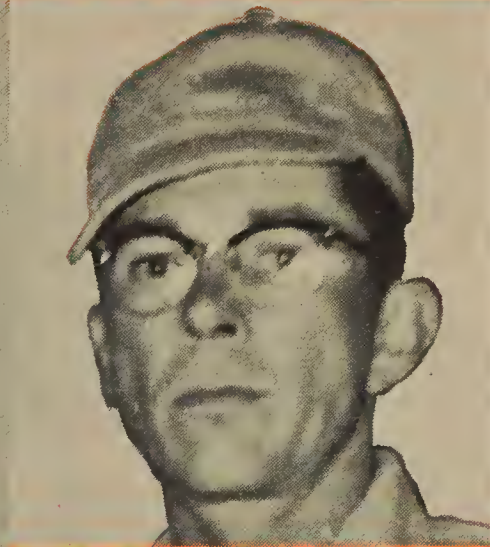
Maes

USERS REPORT



**Paul Mader,
Bloomington, Ohio, Reports:**

"Your Maes inflations have practically eliminated our mastitis problems. The cows really enjoy being milked with these soft pliable inflations." Mr. Mader milks his herd of 32 cows with Maes style D narrow-bore for DeLaval 06 shells.



**Stanley Iciek,
Hopkins, Michigan, Reports:**

"The first milking I used Maes I saved 20 minutes' time on 29 cows. My cows seem more at ease with Maes. Also, they don't creep up and there is less noticeable irritation of the teats."



**Thomas Mathwig,
Fall Creek, Wisc., Reports:**

"Your inflations save us 15 minutes per milking. They are softer and more flexible than the others we were using. Our cows gave no trouble in adjusting to Maes inflations." Mr. Mathwig uses Maes style UO narrow-bore for larger Universal shells.



**Earl Smith,
Barnesville, Ohio, Reports:**

"In thirty years of milking, the Maes inflations are the best I've ever used. They milk much faster and easier." Mr. Smith uses Maes style U (medium-bore) for larger Universal shells.



**Ralph Meikle,
Smithfield, Utah, Reports:**

"We're milking faster with Maes style CHC narrow-bore for Choreboy — they do everything you said they would." Mr. Meikle milks 125 Holsteins.



**M. R. Simpson, Deer Park,
Washington, Reports:**

"We like your narrow-bore inflations very much — they stay on a lot better than the others. The cows milk out faster." Mr. Simpson uses Maes style UO narrow-bore for larger Universal shells.

VISIT YOUR NEAREST *Maes* DEALER

OR WRITE TO: MAES INCORPORATED, DEPT. AA35, HOLLAND, MICHIGAN

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CUBA — Louis P. Bolens
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WHITESVILLE — Ellison's Feed Service
Broome Co. — Broome Co.
BINGHAMTON — Checkerboard Feed Store
DEPOSIT — Clinton P. Tompkins
DEPOSIT — Steve W. Zaczek
Cattaraugus Co. — Cattaraugus Co.
CATTARAUGUS — Gramco, Inc.
ELLICOTTVILLE — Ellicottville AGWAY
FREEDOM — N. A. Philippi Co.
FRANKLINVILLE — Gramco, Inc.
LITTLE VALLEY — Gramco, Inc.
SALAMANCA — Salamanca AGWAY
SOUTH DAYTON — Thorp & Mann Feed Co.
Cayuga Co. — Cayuga Co.
MORAVIA — Moravia AGWAY
MORAVIA — Wheat Bros.
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SCIPIO CENTER — Kreuger Feed & Supply Co.
WEEDSPORT — Otis J. Jolemon & Sons
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CHERRY CREEK — Gier's AGWAY Ser.
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JAMESTOWN — Haggerty & Anderson
SHERMAN — Farmers Mill, Inc.
Chenango Co. — Chenango Co.
AFTON — Lester Cutting
GREENE — Maxon Feed Co.
NEW BERLIN — Valley Supply Co.
NORWICH — Norwich Farm Impl. Co.
Clinton Co. — Clinton Co.
CHAMPLAIN — Bechard's Farm Equip.
Columbia Co. — Columbia Co.
CHATHAM — Wirthmore Store
HUDSON — Kell Farm Supply
Cortland Co. — Cortland Co.
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HOMER — Wheat Brothers
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EASTON — Ewing Farm Impl. & Hardware
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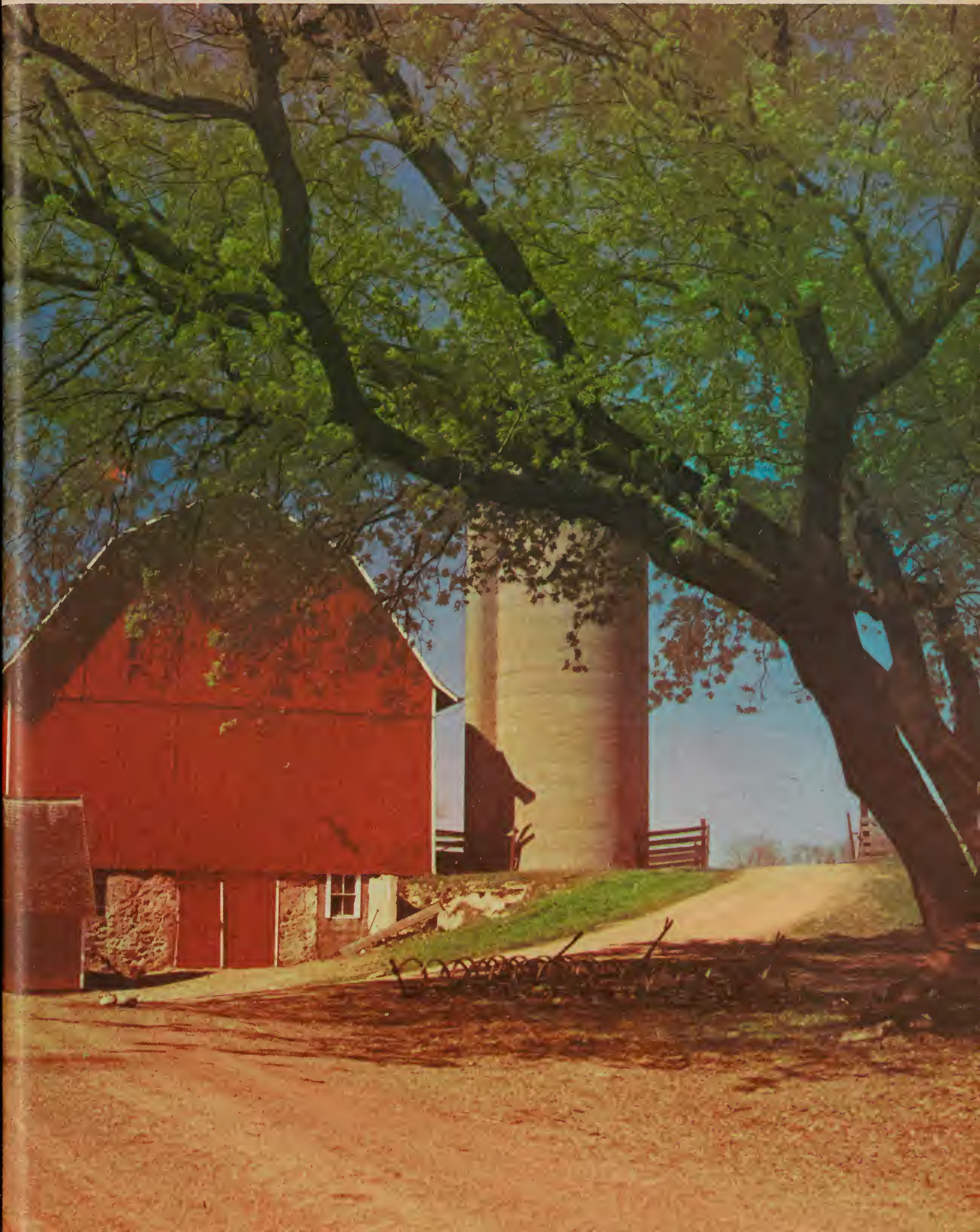
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American *Agriculturist*
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RURAL NEW YORKER

FOR THE NORTHEAST FARMER
APRIL 1965



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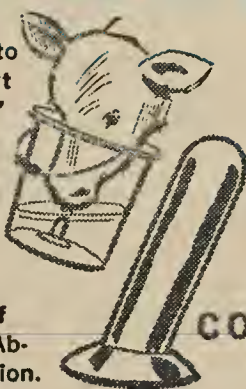
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FREE CALF TRAINER NIPPLE

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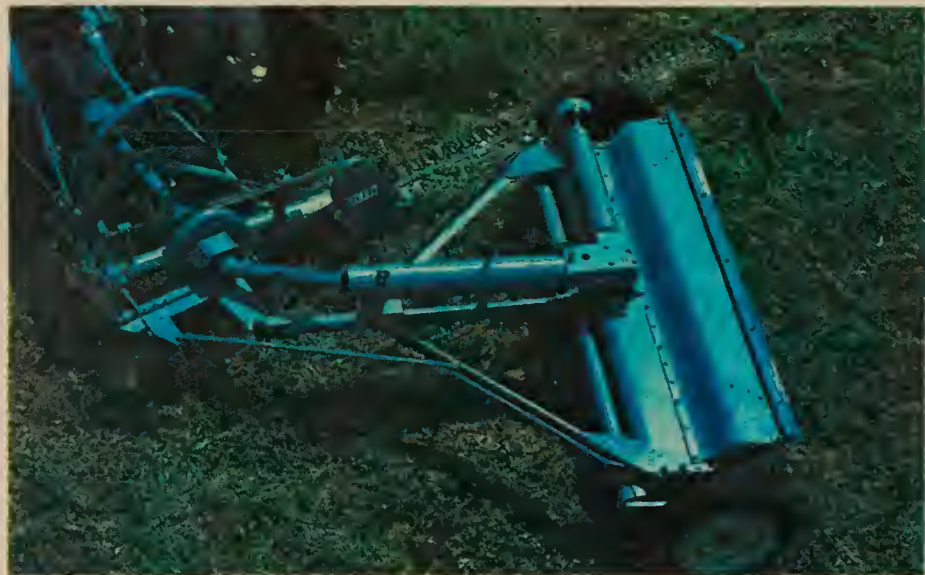
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Reports are in from hundreds of owners. They rate the Ford 530 tops in balers, praising its 14-ton capacity and ability to keep going. They like the five-foot plus width of the pickup, and the way it sweeps windrows clean with minimum leaf loss. They talk about the smooth action of the feed forks. They note the firm, tight bales that stack and handle well.

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FORD



American Agriculturist
and the
RURAL NEW YORKER
FOR THE NORTHEAST FARMER

Volume 162 No. 4

A. James Hall Publisher
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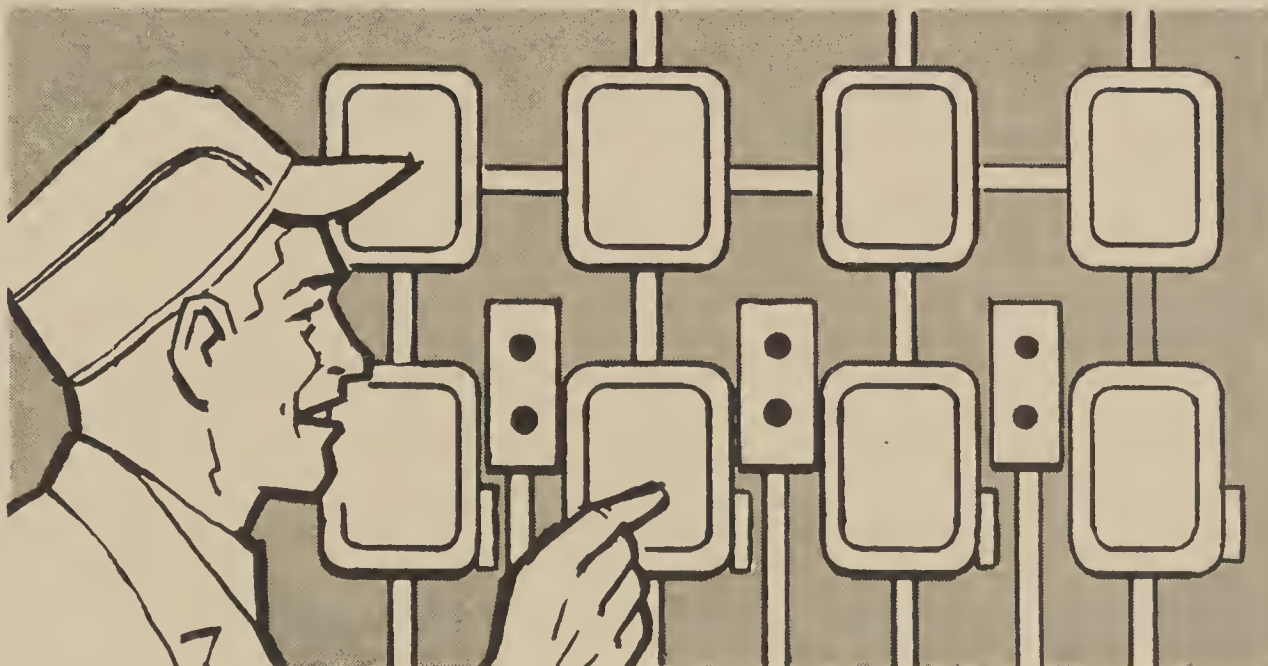
OUR COVER

That spring-tooth harrow sitting so placidly under the tree has just been hauled out and readied for action. A new crop season is upon us; every day the sun rises higher and warms renewed optimism within us all!

American Agriculturist, April, 1965

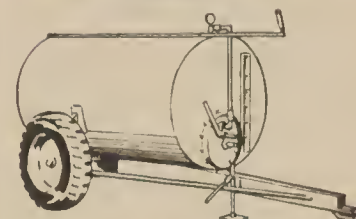
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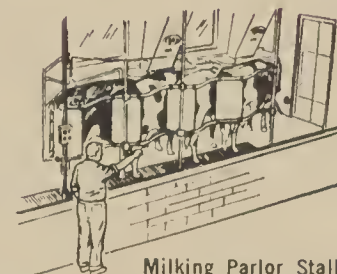
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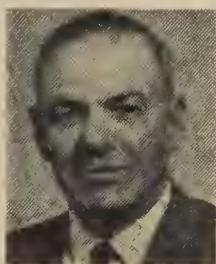


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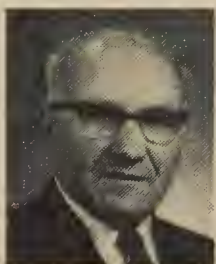
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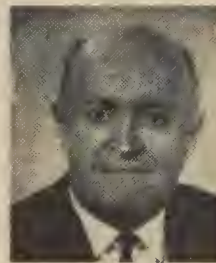
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EDITORIALS

by GORDON CONKLIN



THE CASE FOR HOPE

The abrasives of life get us all down at times . . . taxes are higher; our neighbors disappoint us now and then; our children are often impossible; world peace seems eons away. Those long strings of cows . . . or house full of hens . . . demand careful attention every day. To make a living from livestock, fruit trees, vegetables, or cash crops requires great skill, more specific timing, and being on the ball all the time.

Investments in the farm business become larger at a frightening rate. The remorseless pressure of the marketplace goads us all toward more pressure, greater efficiency and constant change.

I receive many a thoughtful letter asking whether all this hustle and bustle in the midst of exploding technology is really worthwhile. It is a question that has been asked since man invented the wheel, saw dimly its enormous possibilities, and wondered, "But what about the pack-bearers this will displace?"

All through the ages man has pondered the meaning and purpose of human life . . . lived out as it is in the tumultuous arena of daily existence. In this arena the dust of human clay is cemented by sweat and blood and tears into the shape of man. It is here that flow the riptides of courage and fear, hope and despair, love and hate . . . the great plus and minus charges that light or dim the radiance of the human race.

When a reflective mood about these things settles upon me, I am irresistibly moved to walk across the fields and through the woods, or take a hoe into my garden. Somehow the feel of the good earth as I plant another season's seeds . . . the arching sky of spring that stirs the slumbering legions . . . tells me that the best is yet to be.

PROFIT IS NO LOSS

One of the words that has become a dirty one lately to some people is the word "profits." It has developed an image of grasping rich men wringing the substance from those now discreetly labeled as the "underprivileged."

We forget that the profit motive makes people, rich and poor alike, deliver their very best, and in doing so they contribute mightily to the material progress of the entire nation. Without the profit system as a guide, there would be no incentive for the efficient use of the resources available to make the things you and I want.

The profit spur pushes the power companies to find cheaper ways to make electricity for farmstead automation, goads the farm equipment suppliers to develop automatic shifting for tractors, and leads chemical producers to spend millions of dollars developing spray materials that do a better job than ever before. When you and I and millions of other people decide what to buy, our decisions influence profits, and they in turn guide the decisions made by every company selling things. They have to take into account what we want; profit is the sensitive nerve-ending of every corporate structure . . . a thermometer, if you will, giving a reading on how efficiently it is meeting the needs of those it serves.

There are many in countries overseas, and

even in our midst, who would prefer to see the profit motive destroyed, even though its absence has proved to be negative. Russia boasts endlessly of catching up with the American standard of living . . . and does not. China's "great leap forward" ended in a mud puddle of oratory . . . and starving Chinese. Castro redistributes poverty, but has not created the Utopia he promised.

The enormous cornucopia that pours forth so abundantly the goods and services you and I enjoy could not exist without the stimulation of potential profits . . . both on the farm and in other lines of business.

The nature of man is such that he will perform most effectively when he can keep a large share of what he produces with his sweat and risk. If he cannot, then he sees little reason to exert himself, or take the chance through investment of losing his savings so dearly accumulated with previous effort. The debate between communism and capitalism boils down to a difference of opinion concerning what makes man tick, what motivates him to do his best, how to induce him to risk what he has to develop something better.

Try to keep in perspective the function of profits in our society. Ask yourself about how people . . . including yourself . . . react to the possibility of profits. Don't let the axe-grinders, the slogan-bearers, or the gullible bleeding hearts sway you into deserting, step by step, our economic system, with its awesome capacity to produce what people want.

DRY HUMOR

Now that some of the sting of the recent years of drought in the Northeast has faded from memory, maybe we can laugh about it a bit. Does anyone have a story (tall or otherwise) about just how dry it became in your particular area?

HUMPTY DUMPTY'S IMAGE

The barely-readable sign saying "Eggs For Sale" hung slantwise from a rusty nail driven into a tree long dead. I drove in the driveway, gunning the motor to carry me through an enormous mudhole halfway between the main highway and the sales room.

As soon as I got out, a gigantic mongrel charged me, growling and barking. Ready to do battle, I discovered he was really friendly . . . a fact attested to by the muddy footprints all over my new suit and white shirt.

I stepped gingerly over a tangled roll of rusted poultry wire and went up the path. On the way, I noted a couple of dead hens lying beside the incinerator made of an old oil drum. Inside the drum, a fire crackled noisily and the greasy smoke rolling out spoke eloquently of the fact that not all the dead birds were cold.

Once inside the sales room, I bought my eggs hastily. Waiting for change, I glanced out the rear window and saw that it was serving like an open porthole for tossing out rejected eggs. The wind suddenly shifted and my lungs fought for air as my nose shut tight.

Exaggerated? Well, I haven't seen all these things all at one place, but I've seen them all at one place or another. We in agriculture must become more conscious of the fact that we've got to run a tighter ship if we're going to sell things at retail. Whenever you invite someone to your farm to buy something, be

sure he's going to be treated a bit more personally than he would be at the supermarket . . . and be sure he comes away impressed by how clean and wholesome is the modern farm.

PEACE CORPS

The first "state to nation" recruiting program in the history of the Peace Corps is underway in New York State. Called the Agricultural Task Force, it is being organized by 4-H agents across the State. Recruitment of 70 to 80 volunteers, over 18, married or single, with practical agricultural and home economics skills, continues through April 15.

Volunteers will go to Brazil or to Sierra Leone, the latter being a small country on the West African coast. Anyone in New York State interested in more information should contact the county 4-H agent.

The Peace Corps has blazed some trails in helping the people of underdeveloped nations help themselves. Better than any amount of free American food, these young people have shown overseas neighbors how to grow their own. It's an organization . . . and a purpose . . . that has gained the respect of the free world.

OBSOLESCENCE

Visited a number of dairy farms in New York's Central Plain region recently and had my eyes opened. This always happens when I cure my swivel-chair saddle sores by going out to visit you folks who make the wheels go 'round in agriculture.

During my three-day trip, I visited with a number of farm families . . . three of whom had recently built new dairy barns. In each case, a very acceptable conventional dairy stable had been abandoned as far as milking animals were concerned. In two instances, very little use was being made of the old stable, on the third farm it was being used for dry cows and young stock.

I think obsolescence is rapidly becoming a very important consideration in farming . . . in terms of buildings as well as equipment. Depreciation schedules need to be shortened for income tax calculations . . . and, even more important, for management decisions.

These families did some pencil-pushing on labor efficiency and size of business; they decided they couldn't afford to stay with the old stables, even though many farmers would consider them very adequate. Their figures showed that the cost to produce a hundred pounds of milk would be so much lower in the new facilities that added returns would equal capital costs in a reasonably short time.

Every farmer knows how frustrating it can be to try to adapt existing facilities to fit the new technology available to dairymen. Not every milk producer should forget remodeling the old stable and start from scratch with a new one, but every dairyman needs to reckon with obsolescence when he plans for the future.

THEN THERE WERE THREE

Just in case anyone is wondering, I want to go on record as being for the recent merger of the two New York State milk cooperatives generally referred to as "Metropolitan" and "Mutual." A good many dairymen have watched with dismay across the years the fact that the constructive activities of all four major milk organizations in New York always seemed to be downgraded just a bit by the constant sniping going on between them. It seems to me that this merger offers an opportunity for expanded service to dairymen.

American Agriculturist, April, 1965



Make hay while the sun shines...



...make haste when it doesn't!

Nobody's got very far yet with a method for holding off rain when you don't want it—or turning it on when you do. But one thing's sure, the odds favor a man who takes a *systems* approach to hay-making. The system you see here is Allis-Chalmers Orange all the way into the barn. It's getting this farmer higher quality hay, getting it under cover faster with minimum risk and minimum manpower.

It began with the scene on the previous page when it was bright and sunny—a real hay day. He was out early on his D-17 tractor with a side-mounted Allis-Chalmers mower, one of the famous Twin Wheel drive models, so quiet you can almost hear the hay fall. It gets rid of the pitman, which means there's practically no vibration, and *that* in turn means less wear, longer life. He conditioned the hay



as he mowed, with an Allis-Chalmers hay conditioner that speeds curing, saves leaves and boosts palatability. Next time he covered the ground his D-17 was working with the 77-G rake you see parked. It's fast, quiet and smooth-running; building straight, fluffy windrows ready for today's baling. So he was ahead of the game when it came up threatening this morning. He'd hooked up his Allis-Chalmers

303 baler and thrower last night, with an A-C power box bringing up the rear. Today it's bale after bale, neat and square, hour after hour, filling and refilling the wagon—then swiftly up his Allis-Chalmers conveyor, safely into the mow. Now he's on the home stretch, a winner. Another fifteen minutes—and let it rain! As your Allis-Chalmers dealer will show you, you just can't beat the system!

BHL



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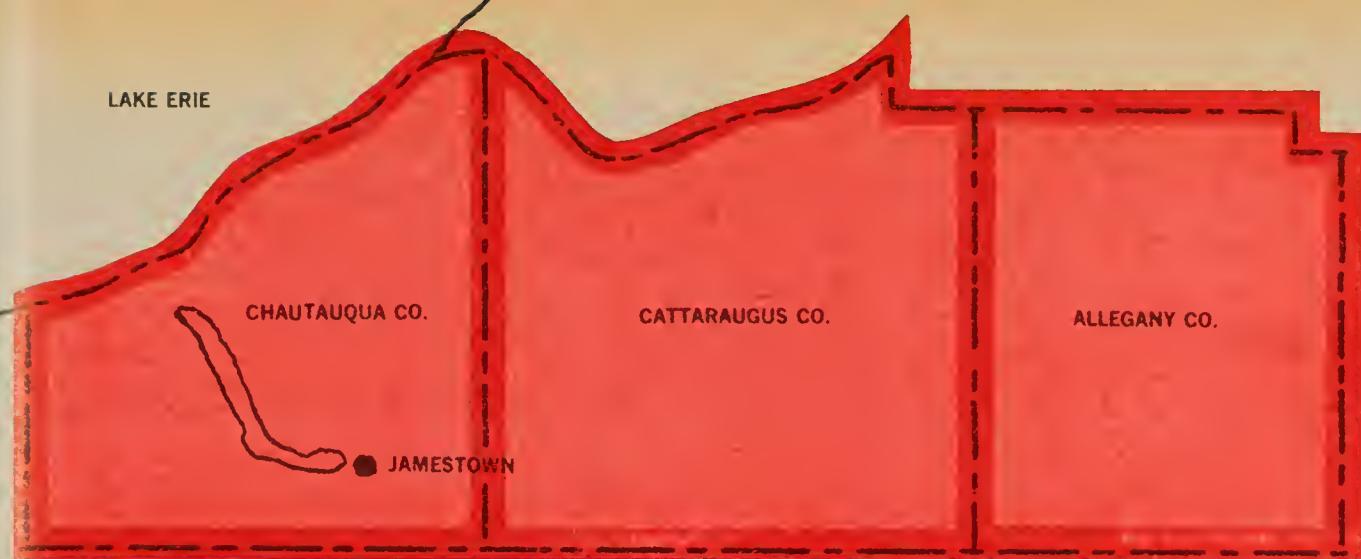
...tick...tick...tick...tick—fast!

New Holland's low-cost Hayliner 268!



Here's big capacity at a down-to-earth price—the New Holland PTO Hayliner® 268! A “268” ticks off solid, square, tightly-tied bales hour after hour, day after day. ■ Top-quality bales, too, thanks to gentle, leaf-saving Flow-Action® feeding system. With fewer moving parts and no gear box, Flow-Action promises years of no-trouble service! ■ Need a long-tongue baler? See the new Hayliner 269. ■ New Holland Machine Company Division of Sperry Rand Corporation.

NEW HOLLAND
25 YEARS OF BALER LEADERSHIP



Martin Anderson is Extension agent in resource development for three southwestern New York counties.

A Land of Change

IN 1961, leaders in New York's Chautauque, Cattaraugus and Allegany counties saw need for planning to conserve natural resources, while channeling them into economic gains. As a result, small farm service communities have been changed to hamlets for commuters from the city, there are lakes where none were before, wild-life is returning to the area ... and many other changes.

Some Examples

Merril Bull, a former dairyman of Cattaraugus County, converted his hilly, wooded farm at Delevan into a camping area known as Arrowhead. He used the natural terrain to establish lookouts, turned a low clearing into a lake and a sunken, grassy opening in the woods into an amphitheater. Paths were cut through the woods, and 170 campsites and 200 tables placed at well-planned locations. There are docks for rowboats and canoes on the lake, and a beach for the swimmers ... while the young fry go for the jungle-gyms and other amusements.

Merril believes that a camping area must offer people something more than just space, hence his Saturday night campfires, Sunday morning church services in the amphitheater, and holiday parades for the children. The 1,500 people who came to the camp over the July 4th weekend, 1964, proved him right.

Robert Westfall of East Otto is clearing land for a 60-acre lake that will hold about 150,000,000 gallons of water. Earth is being heaped for islands and peninsulas, and soon a dam will be erected and the water will rise. In this area of streams and springs little damming is necessary.

Wood Important

Westfall is also a Christmas tree grower, and wood is important. The Ellicottville sawmill of Fitzpatrick & Weller uses locally-grown timber ... saws up to 18,000 feet of logs per day. The addition of a wood-chipper and de-barker has improved the chips

made from trim and scrap, which in turn are used by a paper mill (the Flakebord Corporation) at Frewsburg.

Furniture-making, too, flourishes at the Fancher factory at Salamanca ... a recently-completed expansion, much of it in a new warehouse, brings the unfinished pieces of furniture by conveyor belt to the finishing plant. Cherry, oak, poplar and maple woods are all used.

This particular factory employs many Indians from the Seneca Reservation. Much of that reservation will be under water with the completion of the Kinzua Dam. With the federal compensation, the Indians plan to build an Indian village as a tourist attraction. Not only will they show the tribal life and work, past and present, but there will be modern motels, restaurants, campsites, cabins, etc.

Deer Herd "The Finest"

The wild turkeys are returning to Allegany State Park, near the Seneca Reservation. In fact, James Lindsay, regional supervisor of fish and game, says that wildlife is increasing all over the tri-county area. The deer herd is the finest in the State, averaging 20 pounds heavier per animal than in other parts of the State.

The area streams and lakes are being stocked with fish compatible to the area, and since the native pheasants are declining (because of lack of farm grain) efforts are to be made to establish the Korean pheasant.

New Kind of Farming

Farming, however, is still vital to the area, and a new kind of agriculture has arrived. The snap bean farmers find the area soil just right, and there are close to 10,000 acres of beans in Cattaraugus County, and a great many acres in Chautauque County. One reason for the influx of bean growers is mechanical harvesting. The bean grower needs more land for larger acreages so he can afford a mechanical harvester!

On the lake fronts building is moving back up the slopes. Many

George Heron, president of the Seneca Nation of Indians.



Been to a modern sawmill lately like this one operated by Fitzpatrick & Weller at Ellicottville, New York? If not, you'd be amazed at its automation and the remote controls in the hands of the sawyer.

pieces of land are being bought by city dwellers for summer or weekend homes.

Problems

With the building up of new enterprises come new problems, not the least of them water and sewage problems, and zoning. There is a problem of pollution at Chautauque Lake ... and the Town of Ashford in Cattaraugus County must work out zoning problems created by the building of a new plant that will treat nu-

clear waste and bury much of it under the ground.

It has been an adventure in rural resources development, an adventure that continues and will continue in this and many other areas of the Northeast for a long time to come. It's a job that involves many individuals and many groups, including the members of the Rural Resources Development Committee at the New York State College of Agriculture, Cornell University, which originated the tri-county project.

Free stalls lower cost

by Robert Cudworth

ARE FREE stalls a good investment in a loafing barn?

Dairyman Franklin Atkinson, Bridgeton, New Jersey, thinks so because he built his free stalls with the money he formerly spent on straw. "With this setup, I not only save money buying sawdust instead of straw, but I'm using less space and labor . . . and my cows are cleaner," he says.

Before this year Franklin used two loafing area barns outside his 4-stall milking parlor. He estimates the straw purchased for bedding cost him about \$8 per day. He was using some 60 tons of straw per year for his 49-cow dairy.

In February he put free stalls in

one of the barns, at a cost of \$1200. He sold the straw he had on hand for \$900. The sawdust now used for bedding costs only \$1 to \$1.50 per week compared to the \$8 per day for straw.

He is making better use of his space with the free stalls . . . so much better, in fact, that he need use only one barn for a holding area. The second barn now shelters the family's riding horses.

The cows like the free stalls . . . especially in South Jersey's hot summer weather . . . as a place to get out of the hot sun and flies.

The Atkinsons find it is easier to clean the holding area now than previously because there is much less bulk to handle. They use a



scoop on the back of a tractor and drive through between the rows of stalls, then push the manure across a paved barnyard to the pile area.

From the sanitation standpoint, Franklin reports that his cows are

cleaner in the free stalls than they were in the built-up straw and manure. "And with the increased push on tighter health and sanitation standards, this is a big item," he comments.

A Million a year

A MILLION POUNDS of milk a year with a labor force of 2½ men and without feeding purchased grain!

A big order? You bet, but it's the goal of Paul Green of North Petersburg, Rensselaer County, New York. And here's how he proposes to do it. Incidentally, it doesn't sound impossible when you know that milk production per man last year (with 60 milkers

averaging close to 13,000 pounds of milk) was over 300,000 pounds.

"We are stepping up our corn acreage to around 70, with 20 acres going into a concrete stave silo and 50 being picked and stored in a Harvestore as wet shelled corn. I figure we can easily get 100 bushels per acre. Where corn is picked we plan to plow the stalks under, but if we need bed-

ding, the stalks can be shredded. I recently bought a nearby farm because it has some good corn ground and a tenant house."

Corn and hay will be the two principal crops. Half the hay (alfalfa or alfalfa-brome) will be baled; half will be put in sealed storage as "haylage."

"I feel that it's sound to spend money to save labor," commented Paul.

"I put in a milking parlor and bunk feeder about a year ago," he continued. "Haylage will be put into the bunks with an auger. Wet corn will be fed in the milking parlor, and corn silage when cows

are stanchioned or at the feed bunk."

Paul graduated from the Morrisville, New York, Agricultural and Technical School in 1941. Then he had 28 milkers, a figure which has been increased to 110.

Some pasture is available, but Paul doesn't count much on it. "In 1964," he said, "we had only about three weeks of pasture; even at best you can't figure on more than six weeks."

Incidentally, the home farm has been in the same family for at least four generations. Speaks well for the farm — and for the family!

A Two man business

by Hugh Cosline

I LIKE TO SEE a young man who has definite plans and who starts to farm for himself with enthusiasm. After a visit with Edgar A. King of Schuylerville, in Saratoga County, New York, I concluded that he fits the description.

When he went to college Edgar didn't decide to be a farmer. He was interested in some kind of personnel work. But before he finished college, the home farm began to pull him.

"I bought the farm from Dad on liberal terms," said Edgar. "I

have replaced Guernseys with Holsteins, and hope to build a breeding herd and sell some surplus stock."

"I hear a lot about so-called lead feeding. Have you tried it?" I asked him.

"Naturally, I didn't know the full potential of the cows I bought, so I have used lead feeding. In other words, I fed liberally to see how each cow would respond. As a result, I have culled some individuals."

"I believe fully that it's a waste

of time and money to keep a cow that doesn't produce as a first calf heifer. It's a temptation to give her a second chance, but it doesn't pay."

Likes Stalls

The farm was a conventional tie stall type showing recent construction, so I asked Edgar's opinion of open stables.

"I feel there are advantages to free choice stalls, but I think cows can be shown to prospective buyers better in stalls, and as I intend to sell surplus stock, we put in tie stalls."

"How big a farm are you working toward?" I asked.

"The home farm has 92½ acres,

with 80 tillable, but I am renting some additional land. I have 34 milkers and 8 heifers close to freshening. Eventually I plan on 50 milkers."

"What about your feeding program?" was my next question.

Haylage

"We have no pasture. In summer I plan to feed haylage. This year I grew 20 acres of corn. Two acres were chopped and fed green; eighteen acres went in the silo (16 x 45 feet). Before too long I plan to put up another silo."

"How much help do you figure you need?"

"This will be a two-man business; Dad puts in a lot of time."



Leo (left) and Robert Daxter

Plenty of opportunities

"I GET A LITTLE TIRED of hearing that a young man can't get started in farming because it takes too much capital. As I see it, there are plenty of opportunities for a young man who wants to farm."

This was one comment made by Leo Daxter when I visited the

farm operated in partnership with Robert Daxter, his father. The story Leo's dad told me sounds almost like a fairy tale:

"I was born on a farm," he said, "but for some years I worked at various jobs for wages. For a time I did part-time farming, then bought a rundown farm for

\$1700. There was a time when my father and I fed our few cows mostly from hay (and weeds) which road crews mowed along the roads!

"On the first farm I bought we got up to 30 cows. Incidentally, we cut enough timber to pay for the farm, and when we moved here near Ticonderoga we sold it to good advantage."

Some Remodeling

As I drove into the Daxter yard

(Continued on page 28)

American Agriculturist, April, 1965

From Purina Dairy Research

Announcing... Purina's NEW TOTAL DAIRY NUTRITION PROGRAMS

Just released by Purina Research are new 1965 dairy programs designed to provide your cows with *Total Dairy Nutrition*. Each program was built to fit the *total* nutritional needs of your herd, calculated to fit your roughage, your

cows and your facilities.

Check the programs listed below, and then see your Purina dealer or Purina salesman for details. Let him help you select the right Purina feeding program for your cows.

WHICH PROGRAM FITS YOUR NEEDS?

Purina "Feeding According to Production" Program

This may be the program for you if you have a good supply of roughage. The feeding tables tell the amount of milking ration to feed. They take into account quality of roughage, size of cow, milk production and percent of butterfat.

Purina "Challenge Feeding" Program

If the price of hay is favorable and if you have cows with the inherited ability to respond to heavier grain feeding, this program provides an exact feeding schedule to help you get the most from your cows.

In addition to these new programs, Purina research scientists have developed outstanding new products for 1965 which are now available, including New Nursing Chow, New Calf Startena and New D & F Chow. Ask your Purina dealer for the products and programs built to fit your herd.

Purina "Limited Roughage" Program

If homegrown roughages are scarce or if purchased roughages are high priced, heavier grain feeding and limited roughage feeding may be most economical. This program shows you how to decide and gives exact feeding recommendations.

Purina "Built-in-Roughage"™ Program

This program fits generally if your land, labor, equipment and buildings are relatively high priced and milk prices are favorable. Cows are kept in dry lot and self-fed a Purina BIR milking ration which has roughage built in.



Feeding experiments on cows at Purina's Dairy Research Center near Gray Summit, Missouri, helped develop new 1965 products and programs.

**PURINA
CHOWS**

Ralston Purina Company • St. Louis, Missouri

Mechanical Cabbage Harvester — A tractor-mounted mechanical cabbage harvester that will cut and convey cabbage heads at a speed of approximately 1.5 miles per hour has been developed by agricultural engineers at North Carolina State College, Raleigh. Field tests during the past two seasons have been very encouraging.

The machine has four basic parts. A hydraulically-driven band saw blade cuts the cabbage off just above ground level. A conveyor system raises the cabbage from the band saw blade back and up onto a separator unit, consisting of a reel and a flat belt to allow loose leaves to pass under and drop onto the ground. Then the cabbage heads are pushed off by the reel onto a conveyor, which carries the heads into a trailer pulled behind the tractor.

Ammonia Encourages Poultry Virus — University of Wisconsin researchers have found that ammonia, commonly found in the air of poorly-ventilated poultry houses, can damage the chickens' respiratory tracts. This makes them more susceptible to virus infections.

The severity of the damage depends on the concentration of ammonia. With 200 parts per million of ammonia in the air, birds showed immediate discomfort and their lungs

were damaged within a few days; with 20 parts per million it took more than a month for damage to show up. However, within three days the birds in each group were more susceptible to respiratory infection than birds not exposed to ammonia.

Petroleum Dinner — Esso research scientists are working to obtain a long-sought objective... the successful manufacture of synthetic protein. It is developed through the growth of micro-organisms on petroleum products of extremely high purity. An experimental product resembling powdered milk or yeast has been developed that contains all of the amino acids essential for animal and human nutrition.

Rather Fight Than Switch — Future lettuce crops may be destined to go up in smoke!

And the end product may not be a bargain product at a fire sale, but a package of cigarettes retailing for about 42 cents a pack.

Cigarettes made from the outer leaves of lettuce, which are usually discarded before the head goes to market, are expected to be on sale soon. Early reports say they look like cigarettes and taste like cigarettes.

The base material in the new product also can be used for cigars and pipe tobacco, but only cigarettes will be manufactured initially.

Medical tests of the cigarettes are being made at two Pennsylvania hospitals and

reports will be published in medical journals.

It looks like the cigarette business which got wrapped up with unfavorable cancer reports may get unwrapped with lettuce leaves.

Well, as some people say... "that's using the old head!"

Protein Value of Corn — may be doubled by certain genes, according to researchers at Purdue University. A gene has been found to cause an increase in the essential amino acid, lysine. Kernels possessing this gene have about twice the lysine level of normal hybrid corn. Increased lysine, however, is not the only benefit from the discovery; the gene can be used as a tool in studying the entire mechanism of protein synthesis in corn.

Sweet Smelling — Cornell University researchers are busy experimenting with chemicals that can be added to liquid poultry manure setups to remove odor, both in the houses and when the material is spread. At least one chemical looks very good, but Professor Charles Ostrander says that he is not ready yet to make any recommendations or release any final results.

Balloon Buildings — Inflatable or air-supported structures for agricultural use are advocated by Ira L. Williams, professor of agricultural engineering at Texas Technological College. Uses include portable processing plants, temporary storage houses, temporary labor housing, livestock show houses, and crop storage structures which can be ventilated and collapsed on the product alternately as required for proper conditioning.

The Question Box

... Send us your questions — we'll get the answers

Is fertilizing meadows in the spring still recommended?

Yes. In fact, meadows are neglected more than any other crop. For example, 150 pounds of ammonium nitrate on grass, applied early in the spring, gives an excellent increase in yields. Also, fertilizer applied right after first cutting will usually give a substantial increase in second cutting.

What are the prices being paid for sugar beets in New York State?

As you may know, sugar beets have not been sold in New York State since the turn of the century. As a consequence, there is no basis for quoting a price determined by past experience.

Empire State Sugar Company has developed a contract with farmers to grow sugar beets in 1965. In this contract a formula is used to determine prices paid to growers for their beets. The price paid by the company is determined by the sugar content of the beets when they are delivered and average net returns received by the processor for sugar sold. Since the formula has not been used in New York State it is difficult to say with accuracy what the price will be.

However, the company currently estimates that "average net pro-

ceeds per 100 pounds of beet sugar sold" will be \$8.00. Farmers who average 16 percent sugar in the crop they sell will then receive \$13.52 per ton for beets delivered to the plant.

In addition, the farmer would receive a conditional payment from the USDA for complying with the requirements of the Sugar Act. These payments will amount to about \$2.40 per ton. In other words Empire State Sugar estimates an average price of \$16.00 per ton for beets in 1965 based on their estimates of wholesale sugar prices and costs of handling and marketing the beets.

The expectation of the company is that the price paid in New York will be above the United States average price, which we estimate will be about \$14.00 per ton in 1965 (including payments from the company and the USDA) — *B. F. Stanton, Agricultural Economics Dept., Cornell University.*

Why all the talk about haylage? What are the advantages if any?

Haylage (40 to 50 percent moisture) can be put in the silo the same day it's cut, thus avoiding some weather damage. Less water must be handled in the chopped material, and there is no leakage from the silo.

Because the haylage has less

moisture than corn or grass silage, cows seem to consume more dry matter and produce a little more milk per day. In contrast to baled hay, haylage can be handled mechanically all the way from field to cow.

Can trout be successfully stocked in a farm pond?

Yes, under certain conditions. Pond should be at least 8 to 10 feet deep, preferably fed by springs, though deep run-off ponds above 1,000 feet elevation can be satisfactory. The temperature of the water in the deepest part of the pond should not get above 74 degrees Fahrenheit.

I have a small greenhouse (10' x 20'); am I required to have a license to operate this, and if so where can I obtain one?

"Article 14 of the New York State law requires registration of nurserymen as producers of plant materials, including vegetable and flower plants if they are sold through the regular channels of trade. This is an insect pest and plant disease control law. The size of the operation has nothing to do with the requirement that the producer and seller of plant material be required to register.

"The registration period is from October 1 of one year through September 30 of the following year. The annual registration fee

is \$15, payable to the Commissioner of Agriculture and Markets.

"Our inspectors make at least one inspection annually to determine that no plant pests are present or will be disseminated through the plant material being sold.

"We require that all plant materials coming into New York State carry the certificate of inspection from the state of origin." — *Henry L. Page, Director, Division of Plant Industry, Department of Agriculture and Markets.*

Will pasturing oats injure the new seeding?

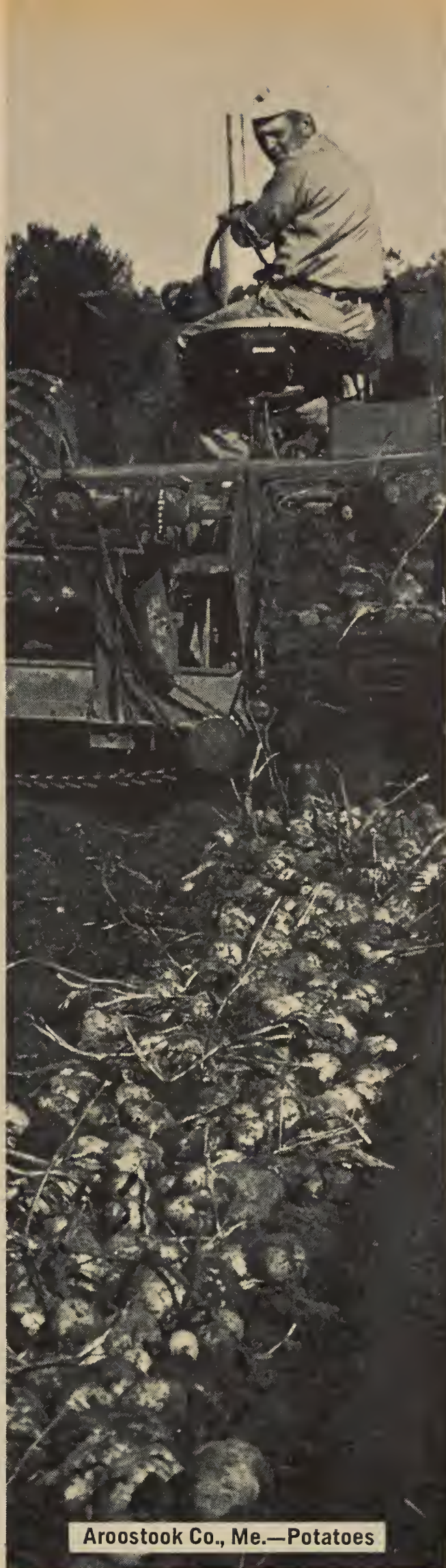
Not appreciably if you use good management. Turn cows in when oats are 6 to 8 inches high. Take them off before they damage the seeding. Turn them in again when the regrowth is 6 to 8 inches high. Reducing the competition from oats will give you a better seeding of grass and legumes.

Should high-moisture mature corn be put in the silo with husks on? Should it be shelled or ground?

High-moisture corn can be put in a tight silo almost any way... ears chopped with or without husks, shelled or ground. It should be ground or crushed before feeding to prevent whole kernels going through the animal undigested.



Sodus, N.Y.—Apples



Aroostook Co., Me.—Potatoes



Lancaster Co., Pa.—Grain Corn



Bridgeton, N.J.—Tomatoes

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former under Northeast conditions. The best for *your* fields. For *your* crop program.

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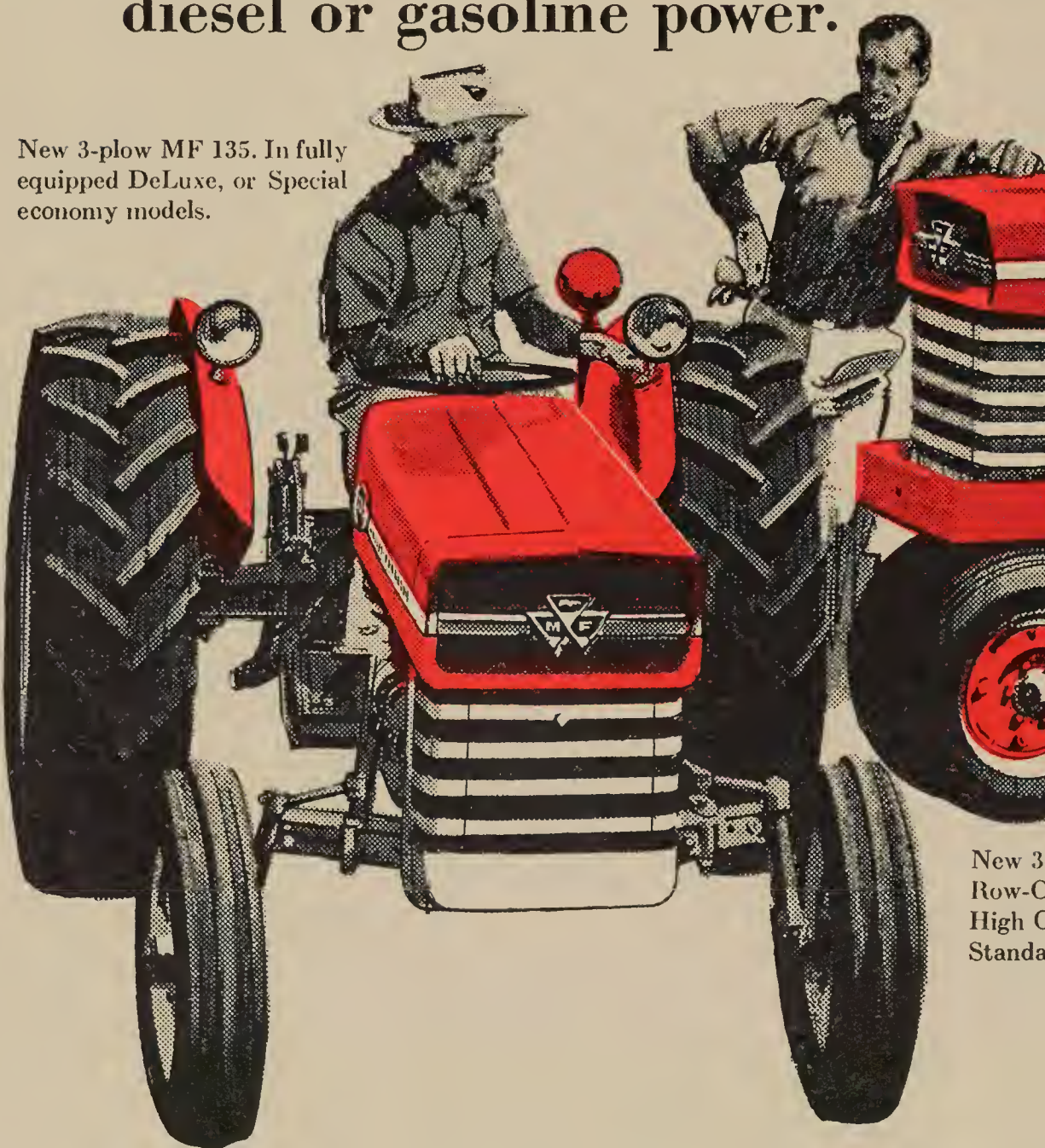
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for greater net returns

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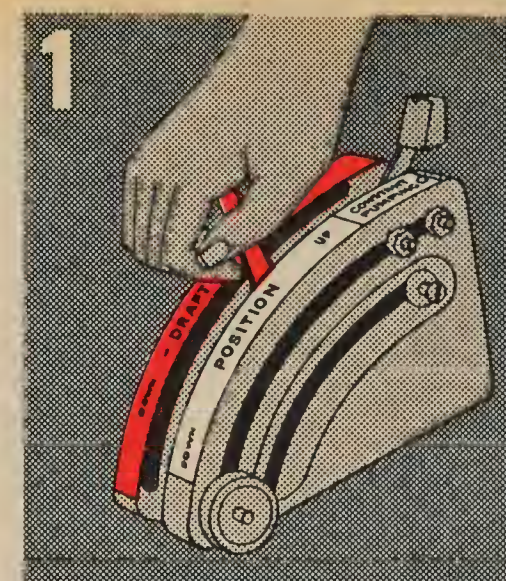
New 3-plow MF 135. In fully equipped DeLuxe, or Special economy models.



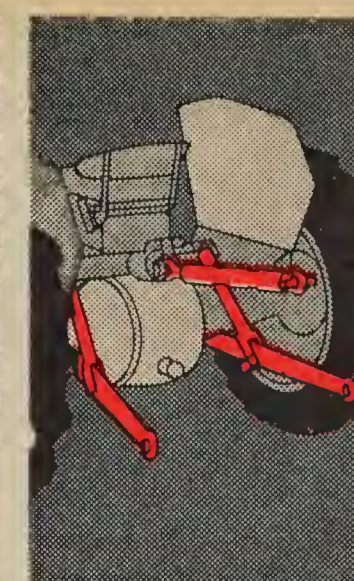
New 3-plow MF 150 Dual Wheel Row-Crop. Also in Single Wheel or High Clearance Row-Crop, or Standard models.



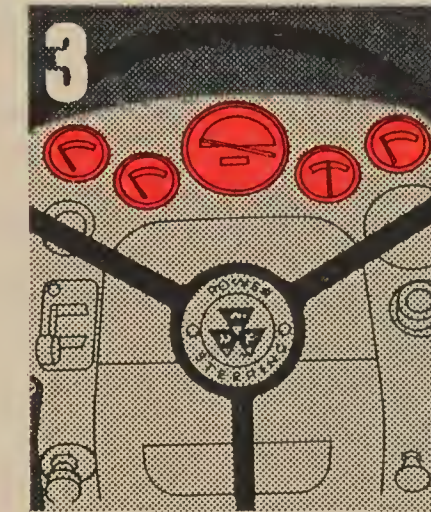
New 4-plow MF 165 High Clearance Row-Crop model. Also in Standard.



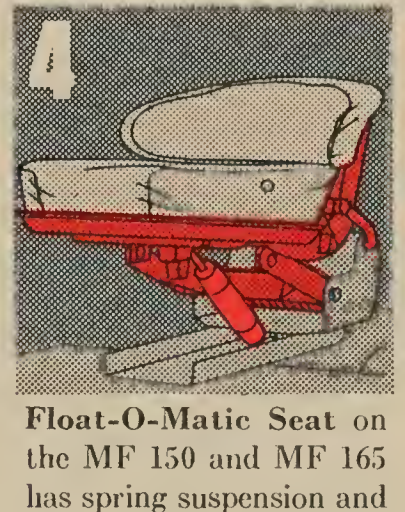
Advanced Ferguson System adds new work power to mounted and semi-mounted implements. Now with stepped-up hydraulics for more "muscle" and lift—more precise implement control—fast, automatic draft response to changing soil conditions.



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TRACTOR PERSONALITY

On the small farm where I lived as a girl we never had a tractor; so it wasn't until I married a more modern farmer that I found out that different tractors have very different personalities.

I should have suspected this, because when I first knew Bill he would frequently describe his adventures in the field with "the old W-30," using the tone one usually reserves for the follies of an aging relative. One of my friends remarked: "I told Sam that if he wanted me to drive tractor for him he'd have to let me have Alice. It's the only tractor that I really trust." I knew then that there was a new approach to mechanization.

One thing that puzzles me is why some brands of tractors are always referred to by proper names . . . "Alice" or "Minnie" . . . while others are never "John" or "Ollie" but always "The J.D." or "The Oliver." Still others are always referred to by their model

as the H or the 600.

Another thing I can't figure out is whether the individual differences are something that are built in at the factory, or acquired from treatment and environment. I can assure you, though, that once you know your tractor, it won't change. The years only seem to make them more set in their ways.

Our present "string" of tractors includes three completely different types. One has a gay and girlish approach to everything. It always appears to be prancing across the field, even when hauling something as mundane as a manure spreader or a trailerload of fencing materials. The second is an "eager beaver," workingman type, and a moonlighter at that. After long hours in the field he always seems to be looking for odd jobs. Over the years, these after-hours tasks have varied from grading tennis courts and plowing snow to lifting a bathtub through a second-story window. And every job is done proudly, with a sort of husky dignity.

Our third tractor is rapidly ap-

proaching the status of an old family retainer. It is at least ten years since a huge crack around the middle sidelined it for a season. There she sat for months, looking for all the world like a swaybacked nag. Major surgery corrected this condition and put her back in circulation for several more years.

Three years ago Bill decided it was time for her to enjoy semi-retirement. He left her at a separate farm for minor jobs, and bought a newer, smaller tractor to take over mowing, raking, etc. But after spending a week tinkering with drawbar and hitch, he gave up in disgust, drove Old Faithful 35 miles over the highway, hitched on the mower, and put her back in the harness. Like so many senior citizens, she was delighted to be needed, and hasn't quit since.

And so it goes. You may recognize some of your family tractors in my description . . . or, more likely, yours are completely different. But keep watching them. Perhaps they know you better than you know them. — Mrs. Dora M. Coates, Mount Morris, N.Y.

AMERICAN'S CREED

Now that the Lord's Prayer has been officially removed from the classrooms and we have an extra moment, I'd like to see that moment filled with the American's Creed. It reads as follows:

"I believe in the United States of America as a government of the

people, by the people, for the people; whose just powers are derived from the consent of the governed; a Democracy in a Republic; a sovereign Nation of many sovereign States; one Nation, under God; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice and humanity for which American Patriots sacrificed their lives and fortunes.

"I therefore believe it is my duty to my country to love it, to support its Constitution, to obey its laws, to respect its flag, and to defend it against all enemies."

— Mrs. H. J. Hansen, Hampton, Connecticut

NATIONAL DEBT

The next time you have a ten dollar bill burning a hole in your pocket take it out, and if it doesn't say "Silver Certificate" on it, strike a match to it and burn it — for it is a note and is part of the National Debt.

However, I have come to believe that it is not the responsibility of the individual to be making private payments on the public debt, any more than the private individual should rush into fighting a fire on his own on which the fire company is already working. Public debt is the responsibility of public officials to negotiate when needed, and the responsibility of public officials to terminate when feasible.

American Agriculturist, April, 1965

There is in some quarters, however, the feeling that the National Debt is something that need not be reckoned with. I think this line of reasoning is seeping into the thinking of many private individuals. This, I believe, goes hand in hand with the feeling we hear so often expressed that profit isn't a necessary part of business.

I won't make much profit today if I don't get back to work!
— Milton Comfort, Middletown, New York

NO DUMPING

The total number bushels of wheat sold by the CCC from June 29, 1964 to December 31, 1964 amounted to 193.8 million bushels. This compares with the same period in 1963 when 188.2 million bushels were sold from government stocks. I believe this proves the point that government wheat wasn't "dumped" on the market to depress the price. — Allan LaMotte, Freeville, New York

IT ALL DEPENDS

After more years than I like to recall operating a dairy farm, I think it depends very much upon one's objective whether he keeps grades or purebred cattle.

I have still a few purebreds. Some are better and some poorer than some grade cows. Generally speaking, when a farmer is inter-

ested in producing milk only, he too often buys someone else's rejects when he purchases purebred cattle. As one college professor pointed out, one can't get any milk out of a piece of paper.

If one has as his object the breeding of dairy cattle, then purebred cattle would probably be his goal. I think one reason purebred cattle frequently produce more milk is that, because they represent a greater investment, better care and feeding are given them. However, the average farmer who is interested in the production of milk only has a larger investment which he finds it very difficult to cash in on. Breeding dairy cattle is a highly specialized operation, and while the rewards are good, if successful, it requires more skill and investment than most dairymen have to give. — Floyd E. Morter, Freeville, N.Y.

THE DILEMMA

The large co-ops you advocate will be just as ruthless and impersonal as either the unions or the corporations. And farmers will have about as much say-so as most stockholders and rank and file union members do now.

The trading of freedom for security is an old tale. No one can say stockholders and union members don't do very well financially, but they, as individuals, are not very important.

Individualism and small-scale enterprise are not sacred cows. They are fine ways to live if you can afford them . . . but it is getting harder and harder to do so.

Yet, because individualism and small enterprise are the real motivation for farming, when they disappear corporate farms run by chemical or retail syndicates will take over the job of feeding the country, and farmers will be employees. — Russ Keep, Newtown, Pennsylvania

SAVE AMERICANA

Every spring and fall many old farms are sold and people start cleaning out. One of the first things to go is paper material, old post cards, catalogs.

Most all are worth something, and should be directed into hands that would care for them, or sold to a dealer so collectors may have the opportunity to preserve them. Most old post cards are beautiful and tell in some way the mode of living in the early 1900's. — Mrs. Ruth Crandall, Troy, New York

AVIATION HISTORY

Although New York State has a wonderful historical background, it is surprising how few people know about our rich heritage of flying.

The New York State Aviation Historical Association is now in

the process of restoring old aircraft, collecting photos, books, magazines, any article pertaining to aviation, pieces of aircraft, or the complete airplane itself. These may also be balloons or gliders, in any condition.

We ask people in all communities to look in their attics, basements, barns, sheds, or any remote place for any of the above items. These items are part of history, and we would like to get them and preserve them for display in museums. If you have any of these items, please get in touch with me at R. D. 2, Germantown, New York, 12526. — Irv. Rosenberg, President, N.Y.S. Aviation Historical Association.

RURAL PLANNING

I concur with your statement regarding planning and development . . . too many urban-oriented planners ignore or are unfamiliar with agricultural practices, problems and potentials as an important economic base for many counties all over the U.S.A. Rural residents, too frequently, have been negative when given the opportunity to share in guiding the future land uses of their given area. Perhaps improved communications are needed between rural and urban groups . . . particularly with reference to future land use, since the bulk of future urban land will come from and compete with agricultural land. — Eber L. Wright, Pierpont, Ohio

BHL



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Used equipment provides an opportunity for economical purchases . . . and a challenge to find what fits your set-up best.

USED MACHINERY SELECTION

by Wes Thomas



"Sold to the man in the polka dot shirt!"

IN MANY SITUATIONS, the purchase of used rather than new machinery is a good method of obtaining needed equipment with a minimum investment. The slack-season winter months are a good time to look around for equipment that you will need next growing season.

The two primary sources of used equipment are farm machinery dealers and farm sales or auctions. Wherever you finally buy, look the machine over carefully prior to purchasing it. Seldom is a used machine "as good as new" in all respects; plan for some repairs or replacements, and allow for these when you consider the purchase price. Some repairs may be so expensive that the machine is a poor buy at any price; on the other hand, some may cost only a few dollars.

Examine Carefully

Before bidding on a machine at a farm auction, plan to examine it carefully, and establish in your own mind the top offer you wish to make. Then, if the bidding reaches the amount you have already set, let the other bidders run up the price! In practically every case you'll be able to find another machine that will suit your needs just as well.

Some things which affect the price you should pay apply to practically all types of machines. These include: condition of the machine; availability of parts and service for the particular make; age (which affects condition and availability of parts); and how

much you need the equipment, or how many hours per year you will use it.

Condition is probably the most difficult of these factors to determine. However, a few key items on each type of machine can serve as a tip-off to its general condition. In most cases, when these key items are satisfactory you may want to check further detailed features. But if the key items are not satisfactory, the machine should generally be avoided, unless it can be bought so low as to offset the cost of correcting major deficiencies.

Tractors

If at all possible, get a check on engine compression. The exact value will vary among tractors, but should be in the neighborhood of 125 pounds per square inch. More important, the pressure should be uniform among all the cylinders.

Of the three items necessary for good engine operation — compression, ignition, and fuel supply — lack of compression is the most difficult one to correct. In most cases, low compression requires new piston rings or a valve grinding job (or both) to restore the engine to satisfactory operation. Generally, ignition and fuel supply deficiencies are not particularly expensive to correct.

Check the condition of the air cleaner. Evidence of poor maintenance usually indicates high engine wear from the dust particles that have entered the engine.

Tires and general appearance

of the tractor sheet metal are two obvious items. Tires, particularly, are expensive to replace. If the carcass is in good condition, the tread can be restored in many cases by recapping. The appearance of the sheet metal may not be critical to the use of the tractor, but again can be a tip-off as to the general care which it has received.

Harvesting Machinery

Such machines as combines, balers, forage harvesters, and corn pickers have many features in common that should be considered. For example, in power-take-off driven versions of these machines, check the condition of the bearings and universal joints in the pto shaft. Also check the condition of drive chains, sprockets, V-belts and pulleys. Usually the replacement of these drive components is not too expensive. However, you should also check for the condition of the bearings within which the shafts and sprockets operate; replacement of these is often a major expense.

On self-powered versions of these machines, the engine itself should be carefully checked. Because of the seasonal use, the engine may have deteriorated more during storage than during actual seasonal use.

Combines — Because of the large amount of sheet metal, rust is a big factor here. Also check for holes or snags in the internal surface of the sheet metal which would affect the flow of grain or straw through the machine. The canvas used in the pick-up portion of the combine is especially subject to deterioration.

Balers — The most important item here is the knoter, because of the expense of replacing or repairing it; also check the bale chamber and knives to see if they are sprung or nicked.

Forage Harvesters — The knives and flywheel are the most important items because the basic purpose of the machine is to cut the forage into small pieces. The high rotating speed of these machines produces vibration and poor operation if bearings are

worn or shafts are sprung out of line.

Corn Pickers — The snapping and husking rolls are the two most important parts of the machine functionally. Because of the many rotating parts, proper lubrication is most important. Check to see that all the grease fittings are present, and that they show signs of having actually been used in the past.

Mowers — Check the cutter bar to see if it is sprung; then investigate the guards, belts, power-take-off, and knife. Worn knife heads may indicate that the machine has had very extensive use, or that the cutter bar itself is sprung.

Other Equipment

Manure Loaders — Signs of physical damage are fairly obvious here. Are any of the structural members bent or sprung? If so, this indicates that the machine has been overloaded. In addition, because of the close relationship of the loader to the tractor and its hydraulic system, check to see if the loader will physically fit your tractor, and if the hydraulic system will be compatible. Some loaders are powered by a separate pump which is driven from the front of the tractor engine. This arrangement, along with control valves on the loader itself, provides a hydraulic system completely independent from that of the tractor.

Alternatively, some loaders use part of the tractor hydraulic system. This may be only the tractor pump with separate valves on the loader; in other cases both the tractor pump and the control valves on the tractor are used for loader operation. Especially in this latter arrangement, it's most important that the tractor hydraulic system match the requirements of the loader in terms of pump output flow and the pressure at which the loader is designed to operate.

Grain Drills — Most important item here is whether the fertilizer and grain boxes have been cleaned after use. Also look at the sprockets and the fertilizer drive. Missing tubes are not particularly expensive to replace.

Corn Planters — Here again it's important that the fertilizer boxes have been cleaned carefully. Also check on condition of gears, sprockets, and boots or shoes.

Disk Harrows — The diameter of the blades should be at least 14 inches. If the blades have been worn down to a smaller diameter the disk probably has seen so much service that the bearings are also excessively worn.

Plows — All the beams must be straight if the plow is to operate correctly. Check carefully for sprung beams; they are usually expensive to replace. The bottoms should be in fairly good shape. In most cases you will probably have to replace the shares and landsides.

Cultivators — After making sure that the cultivator will fit your tractor, check to see that none of the beams or other structural members are sprung or bent. Otherwise there isn't much that can go wrong with a cultivator. You'll probably need to replace the shovels or other soil-engaging parts, however.

American Agriculturist, April, 1965



No

No need to tie up labor and equipment by cultivating corn when you can control most annual broadleaf weeds and grasses for the entire season with one spray of Atrazine 80W herbicide.

That's right, one spray of Atrazine at corn planting time reduces the need for cultivating. So you'll have that time for other important farm jobs, like getting your first cutting of hay in on time.

You can spray Atrazine at planting or after planting, until weeds are about 1½ inches high. Rainfall moves Atrazine down into the weed root zone, where it is absorbed by the roots of germinating weeds. Keeps most annual broadleaf weeds and grasses under control for the entire season.

If it's dry after you've sprayed, and weeds are getting started, then it's a good idea to go in with a rotary hoe or shallow cultivation. This gets the early weeds and moves Atrazine into the weed root zone,

where it controls later germinating weeds.

A new idea that's catching on fast is spraying Atrazine in combination with liquid nitrogen solutions. One trip over the field weeds and feeds your corn.

This takes somewhat special equipment, however, so it's best to ask your custom spray applicator about it. He's probably equipped to spray the Atrazine-nitrogen combination for you. That way, you won't have to worry about weeds or grasses... and the nitrogen will be there to get your corn off to a fast, healthy start.

So why tie up labor and equipment cultivating corn when one spray of Atrazine is all you need for an entire season without weeds or grasses and without numerous cultivations. Contact your local supplier or custom spray applicator.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

WANT TO SELL YOUR FARM?



by W. H. Rawlings *

SO YOU WANT to sell your farm — or do you? Price is a primary consideration, but there are many others.

Appearance will have an immediate effect on the buyer. Does the farm look rundown, unpainted, with manure piled here and there — rusty farm machinery, much of it junk, littering the property?

An old proverb reads: "What the eye does not admire, the heart does not desire." Keep your buildings painted, your lawn mowed, gather up odds and ends and sell them to the junkman. A good coat of whitewash never hurt any building, and the cost is low.

Quite often an owner will mention how nice the property will look after it has been painted. We will show it to several prospects and mention this, but no one buys. Finally the owner decides to apply some paint — and the property sells.

How Price Is Set



Experience is the best answer. What did a comparable property sell for? How many cows can this farm carry? What condition is the land in? Are the buildings what they should be — comfortable, well-designed, and in good location to each other?

Another method used is replacement cost. If we were to build this barn today, what would it cost? Add the value of the other buildings and the land, then deduct depreciation, and you have a fair idea of the price.

Sometimes a similar property has sold at auction. Usually this can be considered the "market value," since no one was willing to pay more for the property than was bid. So we compare the property with the one sold at auction. The price may be low — but it is a true reflection of market value.

Often a farm has great sentimental value for the owner. He has lived there all his life and put part of himself back into the land and the buildings. He knows what there is on his homestead — and if he can get "his price" he will sell.

It is possible that he will sell — and get his price — but today's buyer shops the market rather

well. He is looking for the best value for his dollar, just like everyone else. And most buyers do not want to pay for sentiment; they want a good productive farm at the lowest possible price.

Financing



I think our greatest problem today is finding financing for farm property. The other day we had a buyer who wanted an \$18,000 farm; he had \$2,000 down payment. The same buyer could have walked into any local bank and obtained a Federal Housing Authority loan on an \$18,000 house for \$800 down. But most banks will not give a farm loan for more than 60 percent of the value. This buyer, then, must have \$7,200 down payment.

And the banks do not appraise most farms very high. We sold one farm for \$14,000; both buyer and seller were satisfied. The buyer went to the local bank for an appraisal and found that this bank appraised the farm at \$10,000 and would allow only \$7,000 toward the price. Both owner and buyer were happy when we were able to find other financing.

Pitfalls



Watch the pitfalls in selling real estate. A lawyer can generally recommend a reliable real estate agency. His experience with deeds and titles will have given him enough contact to find which ones are honest and reliable. You'll need the lawyer's services later in bringing your tax search up to date, as well as for drawing up a new deed and doing a title search, so you might as well get your money's worth. And quite often a lawyer's fee means that you are getting what you paid for.

Don't be afraid to sign a contract to sell your property if (1) you really want to sell; (2) you are doing business with a reliable real estate salesman or broker. The contract protects both of you. Generally it states what the agent (salesman or broker) is empowered to do, contains a written description of your property, and mentions what is to be included at what price.

We once sold a farm on which we had no contract. The owner

gave us verbal assurance that he had 160 acres, taxes of \$200, and thousands of Christmas trees. The buyer was satisfied until the lawyer was able to examine the title and deed. The acreage was only 150, and the taxes were \$400. Worst of all, there were no Christmas trees at all!

After that experience, we don't do any business with the farmer who will not sign a contract but will "pay you when you sell it." We sold it all right — but the damage to our reputation was more than the commission we received.

Do It Yourself?



Can you sell your farm yourself? Yes, maybe. You can certainly advertise in the local newspaper and in regional farm papers. The greatest advantage a broker has over you as an individual seller is experience, but he has many other advantages.

He knows the market, and may have a buyer just waiting for a farm like yours. Perhaps someone comes to see him about the X farm — but the buyer doesn't like the farm after he sees it. The dealer then swings him over to see your farm.

This process can work the other way, too. The broker can also spend more time and money with the customer than you are likely to want to, or can afford to.

I never thought a catalog could sell property until the day a broken-down Ford pulled into my drive and eight people piled out. They spoke broken English, and had come to look at a \$4,000 property. We spent all of one day with them; they still hadn't seen what they wanted.

The next day we took them to see a farm priced at \$25,000. Luckily, the owner could speak their language, and was able to converse with them enough to sell the farm. You surely can't judge a buyer by his clothing or his car — and it brought me a healthy respect for the catalog method of selling.

Case History

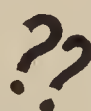


Did I tell you the one about the little old lady who wrote me two letters asking me to please hurry

up and sell her farm? The last one arrived on Thursday, and we had the farm sold at her full price the following Monday. Then she decided she didn't want to sell. The buyer then began to holler that he wanted the property; the owner claiming she didn't want to sell . . . it makes quite a story. But it does happen!

Or about the old-timer who had his farm listed with a broker for \$16,000? Every time the broker brought out a buyer he quoted a different price, ranging from \$20,000 to \$25,000. The old-timer then asked us to sell. We got him an offer to swap property for a city home, but he turned it down. Next day the phone rang. The old-timer was having an auctioneer sell his stock and tools, and was going to accept the city home. Of course, he didn't owe the broker anything — he thought — even though the broker had brought the buyer to him!

What Secrets?



Secrets of successfully selling property? There just aren't any. Price your property at fair market value. Have a competent lawyer for advice and help when you need him — and don't be afraid of his fee. List with a broker who is honest and reliable. We often tell people to list with as many brokers as they can (this is called a non-exclusive listing). The broker who sells earns the commission. Of course, the owner may sell on his own, and pay nothing; with an exclusive listing one cannot do this.

Try to avoid the idea "I'll ask \$10,000; then I can come down to \$5,000 — that's what I really wanted anyway. You can always go down on your price, not up." You will scare away plenty more buyers than you will attract with this method, and, if you are in a hurry, you suffer in the end.

One more item about listings. Never agree to a "net price." In other words, the owner tells the broker, "Anything you can get over \$10,000 is yours." So the broker tries to obtain \$15,000 for the property while the market value is only \$9,000. The property doesn't sell, the owner wonders why. Maybe the broker will be lucky and get his \$15,000 — how does the owner feel?

The normal commission on a farm sale is 10 percent. Why so high? Simple arithmetic. How many farms can a salesman show in a day? Compare this to the number of city homes with their small lots; compare the mileage that must be driven to show farms with that of city property. You'll agree that the salesman earns his fee.

On the other hand, if you sell the farm yourself you can pocket the 10 percent. And you can sometimes do so. Remember to price your property within reason, to make it as attractive as possible, retain a good lawyer, and keep your fingers crossed. When the buyer with money walks in, pray that he likes your property. "Fairly priced is half sold." The rest is up to the buyer.

* Branch Manager, Strout Realty Co., Rome, New York

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NEW

FORD COMMANDER 6000



PTO machines work better with a 6000. Smooth power, fully independent PTO, with PTO Power Selector, plus complete on-the-go control of travel speed make the difference.

All-purpose Commander 6000 (below) features a short wheelbase and lower center of gravity. Row crop models are available with dual front wheel, single front wheel, or adjustable front axle.



MORE BRAWN, MORE POWER

Today's most versatile 5-plow power!

Do you want fast, sure response when you crack the throttle, plus lugging power for heavy "five-plow" jobs? Nimble power that's a real pleasure to handle on light jobs? And a pleasant surprise when you check the fuel gauge?

The new Ford Commander 6000 wraps all these into one sweet-handling, hard-working package.

A smooth, quiet "six" gives you a new margin of power. Extra strength in final drive and PTO keeps this power working for you. You'll power-shift, on-the-go, to any of ten speeds with Select-O-Speed — the user-proved transmission that you'll see copied more and more in years to come.

Exclusive Powr-Stor hydraulics lift heavy implements fast, even when you've throttled the engine back for a turn.

Exclusive PTO Power Selector makes big 6000 power economical on light jobs. On every job, the 6000 gives you a level of operator comfort that you must experience to appreciate.

There's more, too. Best way for you to find out just how good 5-plow power can be is to visit your Ford tractor dealer. Arrange to drive the new Commander 6000, *now!*

SPECIAL! Save on a pre-'65 Ford 6000. A limited number of these pace-setting tractors are available. Get advantages that most '65's can't match, and at '64 prices. Hurry.

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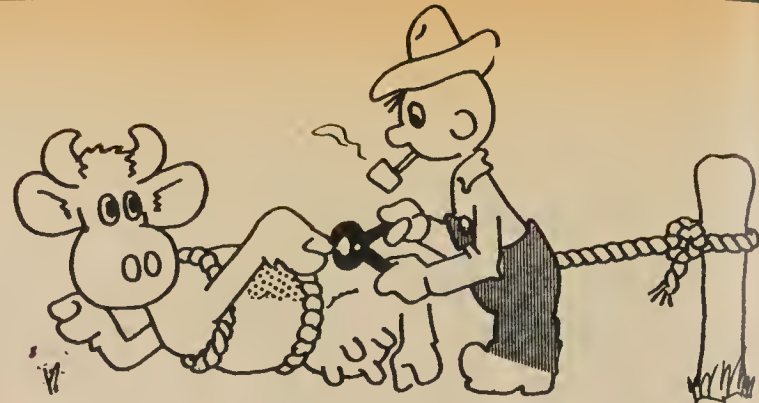


or the newest pole barn



You can't beat the strength, durability, and low cost of

**BETHLEHEM
GALVANIZED
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"Doc" Mettler Says:

WATCH FOR SORE FEET

OFTEN DURING the past few weeks when I couldn't find the owner or herdsman on a dairy farm, someone has suggested that perhaps he's up counting bales. The dairyman around this area who isn't stretching every pound of feed, hoping it will last till pasture, is rare! Farmers who in the past few years have learned to feed in the barn better than at pasture this year the minute it reaches enough growth to sustain a cow.

Cowmen and veterinarians have long looked forward to pasture time as the best cure for acetoneemia, non-breeders, stiff "crampy" cows, and those just plain slow eaters we get in late winter. What good is the pasture going to be, however, if some of the cows are so sorefooted that they can't walk the distance to pasture or move about and graze?

A Year-Round Job

Keeping good feet under your cows is a year-around job, but the crucial time is right now. Selective breeding has eliminated some of the poor feet in herds, but many other cows still have problems.

If all your cows are going to go out to pasture the first day and continue to stay out day and night until summer, you will have to start to look for foot troubles now before they get worse. Walk down through the barn and note how many are standing with their toes on the platform and the heels hanging over the edge.

How many "drop standers" do you have? They may have sore feet or they may be just "crampy." Watch them as they come in from outside or walk into the milking parlor. Do they limp or drag their feet? Are there many with toes so long that undue strain is put on the pastern? Those long toes will break off when the cow gets out to pasture, but they may break off too short and cause severe lameness.

Heel Cracks

If you have many cows fitting into any of the above classifications, you are going to have lame cows when they go to pasture. The cows standing on the edge of the drop probably have "heel cracks." You can treat most of these yourself by lifting them, cutting back the toes with a hoof nipper or parer, cleaning out the cracks with a hoof knife, and applying Kopertox (which can be obtained from your veterinarian).

If the cracks contain proud flesh or "strawberries" or go too deep, you'd better have your veterinarian check them, or have him

show you how to treat them. "Heel cracks" were discussed in some detail two years ago in the Rural New Yorker. They are not seen in all herds or in all cows in a herd, but seem to be contagious in stabled cattle.

A good means of prevention and control of "heel cracks" is to walk your cattle through a powdered copper sulphate mixture. Build a box as wide as the doorway of your barn, four inches deep and four feet across. Fill this with two or three inches of a mixture of powdered copper sulphate, two pounds to one hundred pounds of ground limestone, and have the cows walk through it every day on the way in and out of the barn. It may be necessary to spread a little straw over the box the first few days to get the cows to walk through it. A concrete apron outside the barn door, kept clean, will get a lot of the mud off the cows' feet before they walk in the box.

Powdered copper sulphate (or bluestone) can be obtained from your veterinarian or your local farm supply store that sells spray material. If this procedure is started when there is still snow in the barnyard, or when the barnyard is still frozen, it will do more good than when cows' feet are caked with mud.

Drop Standers

"Drop standers" should have their feet lifted, trimmed and examined for sore or diseased spots. You can do this yourself if you have the inclination. Your veterinarian will probably be glad to show you how, and do the worst ones for you. If you have a lot of cows with long toes and generally poor feet, try to obtain the help of a professional hoof trimmer. No one does more to earn his money, or can do you more good per dollar spent, than a good hoof trimmer. Your veterinarian probably knows the name and address of one, although there are not enough of them to do all the work that needs to be done.

Lame cows should be checked by your veterinarian. A cow that comes in from the barnyard or feed lot suddenly lame might have a stone or nail you can remove yourself, so check the foot before you call. If a nail has penetrated the "live" tissue of the foot your veterinarian should see it and treat it. When you do have lame cows to be treated, be sure to tell your veterinarian in advance how many feet need treatment. It takes time to treat a foot properly and it's dirty hard work. Nothing will discour-

(Continued on page 28)



Shown below is the new 10 Hi-Density Baler.

New Flail Pickup shown above can be used on regular or Ejector-equipped 24-T PTO Balers.



New 224 Series Balers have a pickup cylinder with five bars for faster feeding, faster travel speeds.

Look what's new in John Deere Balers

New John Deere No. 5 Flail Pickup attachment gives the low-cost 24-T PTO-Driven Baler new versatility. It lets you shred and bale cornstalks for bedding in one fast, easy operation. Cornstalk bedding is becoming more and more popular among dairymen and cattle feeders because it is much more absorbent than straw. Baling cornstalks gives you an easy-to-handle package of bedding and enables you to store more stalk bedding in a given amount of space.

The Flail Pickup is mounted in place of the regular windrow pickup. Under its hood is a rotor with 28 free-swinging hammers. Blunt, Y-shaped hammers assure positive shredding of material.

New John Deere 10 Hi-Density Baler. If you have a hay-storage or hay-hauling problem, there's a good chance the new and exclusive 10 Hi-Density Baler can solve it. This baler makes 10 x 15 wire-tied bales with about twice the density of conventional bales. You can store approximately twice the

hay in the same space . . . or the same amount in half the space. If you haul hay you'll get more profit from each load of high-density bales because trucks can carry their load limit without exceeding height and width restrictions.

New John Deere 224 Series Balers are husky, 14x18 twine- and wire-tie balers with deluxe features and a low price. The pickup is V-belt driven, eliminating the need for slip-clutch or shear-assembly protection. Auger is also V-belt driven. Pickup cylinder has five bars for faster travel speeds. Pickup teeth are curved for cleaner pickup.

Bale case is 46 inches long, giving you better-formed bales. A Multi-Luber gives you push-button greasing of all lube points in the knottor area. A roller-type plungerhead gives smoother operation and holds knife register.

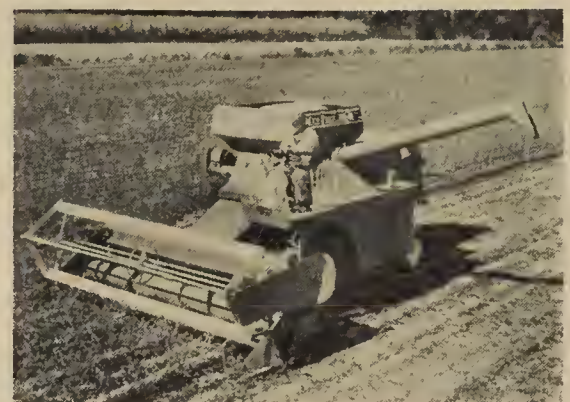
See your dealer for full details on these new additions to *The Long Green Line of John Deere Equipment*. Ask about the Credit Plan, too.

JOHN DEERE
Moline, Illinois





What's New For Farm and Home

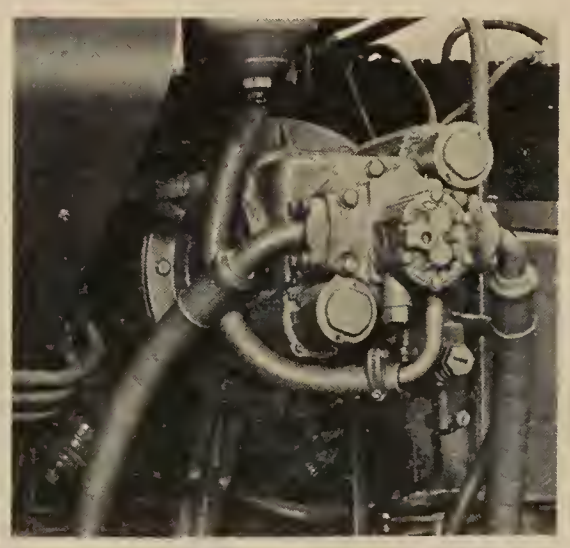


The New Idea Farm Equipment Company, Department AA, Coldwater, Ohio, has made some major modifications of the Minneapolis-Moline implement power unit, rights to which were purchased by New Idea not long ago. The new machine, called the Uni-System, features rapidly-interchangeable corn head for picking corn and a grain head for combining. There are now four Uni-System machines . . . picker, sheller, combine, and combine with corn head. Power units have been beefed up; No. 700 has a 206 cu. inch engine cylinder displacement and the No. 701 has 244 cu. inches. All Uni harvesting units fit either one. Complete literature is available from the company at the address above.

Pictured are the easily-interchangeable grain head and the corn picker head . . . note the handy control console at the operator's finger tips.

Sears Roebuck and Company is offering two products for the control of aquatic weeds. They are both in the pelletized form and are simple to apply. If interested, write for free booklet F6990 from Sears Roebuck and Co., Dept. 632, 3245 W. Arthington Avenue, Chicago, Illinois 60607.

Deere and Company, Moline, Illinois, recently announced its new hydraulic propulsion for combines; there will be a limited number of hydraulically-propelled 55 and 95 combines manufactured by Deere for 1965. The biggest advantage of hydraulic propulsion is being able to get the exact speed required to do the best job of threshing. In addition to offering precise speed control and easier handling of the combine, the new method of delivering engine power to the transmission is much simpler. Hydraulic propulsion eliminates the entire clutch assembly, many sheaves, and other components.



An oxygen-free horizontal silo which utilizes a curved-top building as a storage facility has been introduced by Behlen Manufacturing Company, Columbus, Nebraska. The "Curvet Silo," as it has been named, is 40' wide and is available in 600, 900 and 1200 ton lengths. It is made of aluminized sheet steel prefabricated to form self-framing panels, which when bolted together form both the structural frame and building shell.

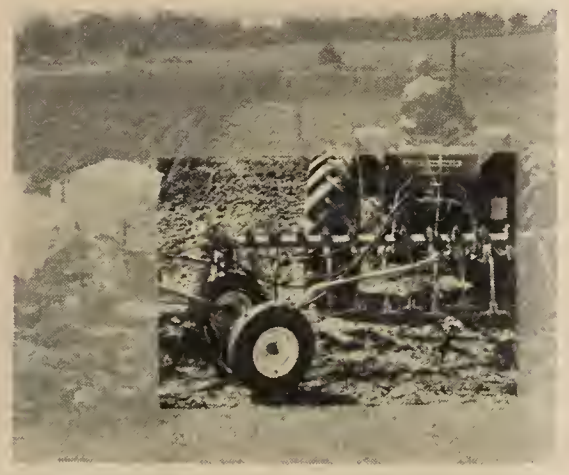
The Curvet Silo features an unloading system which has a conveyor trough through the center of the building and a cutter arm which delivers the stored forage to the bottom conveyor. This cutter arm is positioned hydraulically, resembles a chain saw in action, and actually cuts an edge of the forage for delivery into the conveyor.

For the 1965 crop season, a new herbicide is available for potatoes called Prometryne. Pre-emergence application should be made after planting and before weeds are one inch high; drag-off application should be made immediately after drag-off. It kills both broadleaf weeds and grasses by absorption through their root system.

A new man-made fiber product, American Baler Twine, was recently introduced by American Manufacturing Co., Inc., Brooklyn, New York. The synthetic fiber was market-tested in selected areas last summer. The new twine is completely uniform in size, appearance, straight break and knot break. It is made of continuous fiber in contrast to sisal twine, and is highly resistant to rot, mildew, rodents, insects and moisture. It has essentially the same bulk as sisal, but is much lighter in weight.

Allis-Chalmers has added a combination dolly hitch to its implement line as an aid to farmers interested in "combined" tillage under minimum tillage practices.

Of "double pivot" design, the new unit has one pivot point where the planter is hitched to the cross tube, and another where the pullbar attaches to the tractor-mounted implement. This arrangement offers maximum turnability at the end of the field, and prevents side loading on turns of tillage tools or tractor.



5-MONTH TEST PROVES YOU CAN CUT BEEF PRODUCTION COST 3.4¢ PER LB. OF DAILY GAIN ON REPUBLIC STEEL Rigid-Floor®

Results of a five-month comparison test are in . . .

Beef cattle held and fed on Republic Steel Rigid-Floor Channels cost 10.3¢ per day less to raise than identical cattle kept in pens and sheds with conventional floors and bedding. This cost reduction due to the elimination of bedding handling and bedding cost with Rigid-Floor amounted to 3.4¢ per pound of daily gain!

There were no cases of foot rot with these cattle; 12 cases occurred among the cattle in the conventional floor pens and sheds.

Tests were made under impartial research conditions by a leading state agricultural experimental station. Results are given in a free report available on request. We'll also send you a plans book on Rigid-Floor for all types of livestock barns, sheds, and outdoor pens, and an easy-to-use operating cost comparison calculation blank.

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No milk residue problems when you spray alfalfa with new Alfa-tox to control weevil, other insects.

Here's a new insecticide approved for the control of alfalfa weevil and other forage insects that absolutely frees you of milk residue problems.

All that's necessary is to wait just seven days after spraying with new Alfa-tox* before you graze livestock or cut treated alfalfa for green chop or hay. That way, you're sure of no insecticide residue in milk or meat.

New Alfa-tox gives you dependable control of alfalfa weevil, even strains which have developed resistance to other insecticides. Gives you control for two to three weeks, which is longer than most of the other insecticides recommended.

Alfa-tox is the only insecticide that

contains the two outstanding products, Diazinon® and Methoxychlor. Alfa-tox is one of the least toxic forage insecticides to handle. And, it costs less.

You can also depend on new Alfa-tox for unbeatable control of aphids, spittlebugs, leafhoppers, grasshoppers... and just about every other insect known to attack alfalfa. One insecticide, that's all, and you've solved all your alfalfa insect problems, without milk residues.

So keep close check on alfalfa weevil during the larval stage, when they're most destructive. Spray new Alfa-tox before the first cutting, at the first signs of damage. If reinfestation occurs after the first cutting, spray Alfa-tox directly on the stubble. This

will usually prevent damage from weevil and other insects for the rest of the growing season.

Depend on new Alfa-tox for unbeatable control of weevil and other alfalfa insects without any milk residue problems. See your local supplier or write us.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

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FLORIDA NEWS WITH A NEW JERSEY ANGLE

by Amos Kirby
New Jersey Editor

THE MONTH OF FEBRUARY was spent in Florida, where we have delved into the farm labor situation, with the hope of bringing to New Jersey readers news of some things being tried out in the winter fruit and vegetable areas from Florida to California. Strike — We stopped by a large orange grove where a group of

men and women were sitting around a small fire trying to keep warm in a temperature of 65 degrees. It developed that this group of orange pickers were on strike for more money; they could make only \$20 for an 8-hour day, so they had quit work. Nearby was another group of strikers playing cards, with a 10 cent limit

on the betting. We didn't stay long enough to learn whether or not they received their increase. Wirtz Plan — In our wanderings around Florida I made a serious effort to learn how well Secretary of Labor Wirtz' plan to provide employment from towns and cities was working out.

A typical illustration came from the sugar-producing areas around Belle Glade and Clewiston. Of more than 400 workers recruited from Louisiana, this sugar company had taken 75! By the end of the week only 6 remained on the job; the others had drifted back to their home state.

We inquired why and were told that the basic reason was that they

just didn't like to cut sugar cane. Their pay was not equal to that of the orange pickers . . . cane cutters get \$1.25 to \$1.75 an hour, plus maintenance. Cutting cane is not an easy job; it's done as we used to cut corn!

Off-Shore — Florida has found that the West Indian workers are far better adapted to cane cutting and other harvest tasks than those brought in from other areas; also that the local colored workers are far more efficient and stay on the job. At one sugar mill where they employ 1,200 cane cutters, there is little absenteeism. Where one has 35,000 acres of cane to harvest and a \$15 million plant to keep in operation 24 hours a day, it is necessary to have steady workers. A sugar mill can chew up thousands of tons of cane from one morning until the next.

The Test — The Florida situation is an example of what Secretary Wirtz is attempting to accomplish. No one can object to the idea of finding jobs for able-bodied Americans rather than bringing in Mexicans, Puerto Ricans and British West Indians. The Department of Labor has been sending in workers from Louisiana, Mississippi, Alabama, Georgia and some from North Carolina.

In talking with employers and section foremen, however, the conclusion is that no matter how small the relief checks, people do not wish to work on farms.

South Florida has a substantial labor force, but even though they follow the harvest season from Homestead to Long Island, they are specialists. Those who pick beans, for example, would rather not work on other crops . . . and so on. On one orange plantation the town and city people refused to climb the ladders to pick the fruit.

Efficiency — It is true that picking fruits and vegetables may call for considerable skill if one wishes to make the top wages; but I am told that few remain long enough to learn the art. And even when they do grasp the knack, the harvesting costs range from 30 to 50 percent higher than for experienced workers. This appears to be the situation in Texas, Arizona and California, where the non-farm workers have been recruited to harvest crops.

Conclusion — On the basis of observation, and with so short a time for Secretary Wirtz to show whether his plan will work, it appears that there are not enough people who are both unemployed and willing in towns and cities to harvest the normal crops.

It is also my opinion that by the time the harvest season opens in New Jersey labor officials will realize the need to permit Mexicans and offshore workers to enter the United States. However, this is only an opinion and not based on any degree of assurance.

Puerto Ricans — As this is being written, representatives of the Farm Bureau and its labor-recruiting subsidiary are in Puerto Rico meeting with government officials. Carleton Heritage and others con-

(Continued on next page)

still the best for broad spectrum control

still the best for long residual control

still the best for quality fruit finish

still the best for overall economy

still the best for simplified program

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For over 5 years, this outstanding insecticide has been the favorite with fruit growers from coast to coast. No other insecticide can match its broad spectrum effectiveness. It effectively controls major insects that attack fruit crops and continues to control them from one cover spray to the next. Controlled tests have consistently proven that Guthion gives higher yields and better finish fruit with lower visible residues. Be sure to make Guthion the backbone of your spray program this season.



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nected with the Farm Bureau report that they have an agreement with Puerto Rico for a \$1 an hour guaranteed wage for 1965. At the same time, they admit they are concerned that there may be additional fringe benefits added that might raise the going rate to at least \$1.25 an hour.

Sugar vs. Vegetables

South Florida has shifted a lot of land from vegetables to sugar. In the Belle Glade-Clewiston area they are growing 180,000 acres of sugar cane. A part of this land was formerly devoted to growing winter vegetables.

On the muck soil in the Lake Okeechobee area the soil, climate

and water supply are ideal for sugar cane production. When Castro took over Cuba, this part of Florida increased its sugar production, and there are now several mills in the area. The mill that we visited is owned by 53 growers who plant 35,000 acres; they raised \$15 million to erect their own mill.

Action

The Polk County Farm Bureau, representing 2,200 growers in the heart of the citrus area, summed it up in a telegram sent to Labor Secretary Wirtz, stating that the labor situation is economic, while the government is treating it as a social problem.

This leaves the question, "Is there a real labor shortage?"

From all sources there is an actual shortage, evidenced in the amount of fruit going to processing plants that otherwise would have gone to the fresh market could it have been picked at the proper stage.

Synthetic Juice — Another problem that confronts the fruit growers is the competition from a synthetic juice. Sounds much like the competition from margarine that has played havoc with dairymen! R. W. Rutledge, executive vice-president of the Florida Citrus Mutual at Lakeland, reports that a synthetic product that looks like orange juice, to which has been

added vitamin A, sells at a very low price and is undermining the industry. No figures are available on how much of this product is being sold, but enough to cause concern among growers.

Camp Kilmer

One of the featured items in the Florida press in February was a story on the sending of school drop-outs to Camp Kilmer, New Brunswick, New Jersey, for job training. These boys will be paid \$30 a month subsistence, given clothes, food, and housing, and \$50 a month will be set aside for them. They may stay for at least two years learning crafts and jobs, including the three R's.

non-stop mowing-conditioning

Fed up with plugged mowers? Here's New Idea's answer to making hay without getting off the tractor seat!

With this new New Idea flail mower-conditioner, which does the work of a mower and a hay conditioner, you get non-stop, plug-free operation in all kinds of hay. It excels in heavy, down and tangled hay which plugs sickle bar mowers. Where your mower won't go — this machine will!

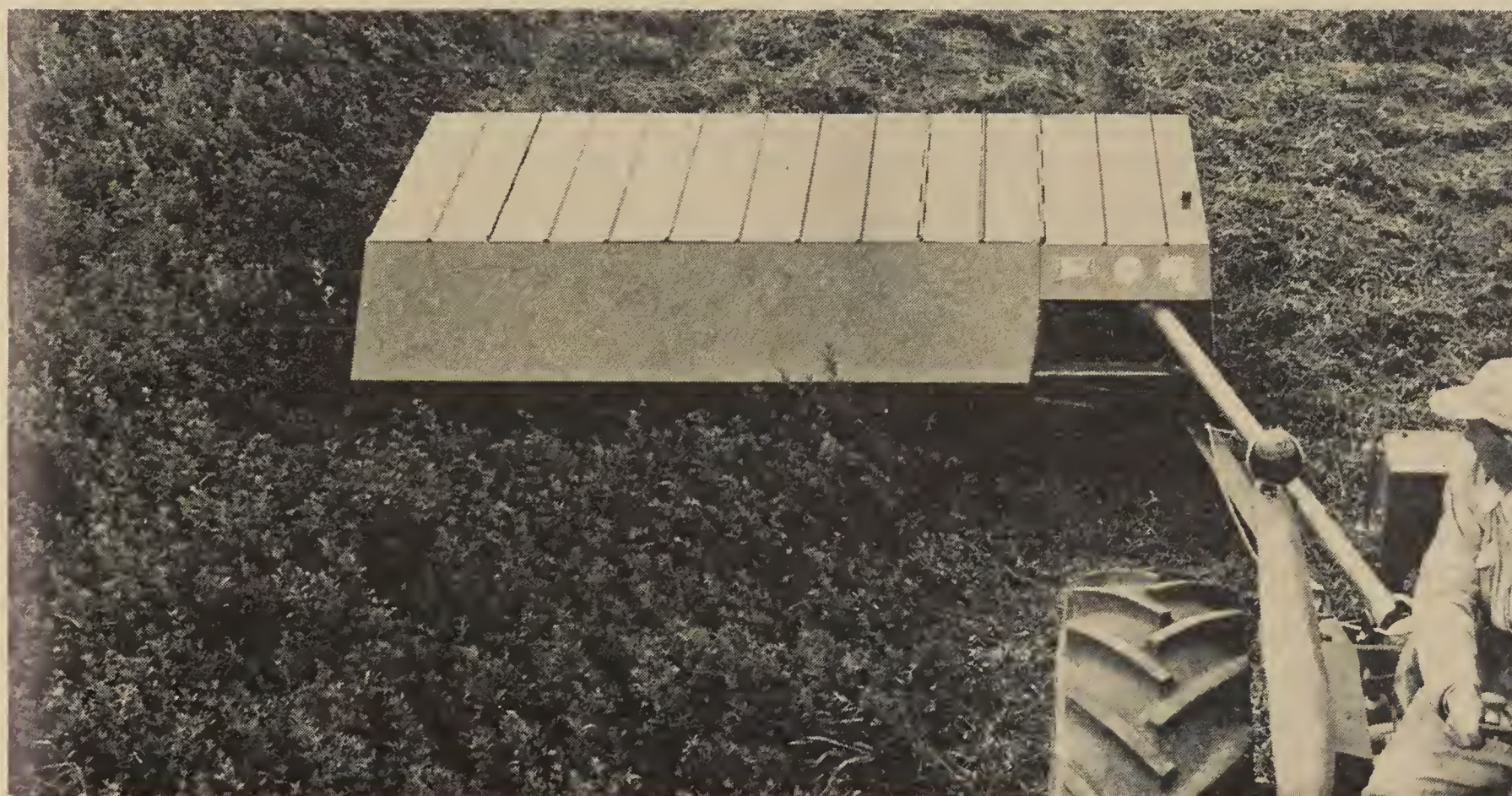
Opening fields is easy because you can travel in any

direction and handle back swaths without trouble. The simple design involves fewer parts and adjustment, resulting in less maintenance and service.

Ask your New Idea dealer for a personal rundown on this fast new way to make hay. New Idea Flail Mower-Conditioner — another bold new idea from New Idea, Coldwater, Ohio.



Leading edge of this flail mower-conditioner bends the plants so that the slow speed, wide flails cut at the *lower end* of the stems. As cut plants pass through, the *stems* are struck by the flails and cracked, permitting moisture to escape quickly.



This versatile, multi-purpose machine cuts a wide swath in any direction. With windrow shields attached, it will mow, condition and windrow for making wilted grass silage. Other uses include shredding corn stalks, cutting weeds, clipping pastures, cutting straw stubble or conditioning straw for easier baling.

farmers who have used this machine like these outstanding features:



FREE-SWINGING STEEL FLAILS are one-piece alloy steel, sharpened and heat-treated for long wear. Individual flails may be sharpened without being removed from the rotor.



ADJUSTABLE CUTTING HEIGHT is controlled by a crank-type hand lift which is standard equipment — or an ASAE standard 8-inch stroke single or double-acting cylinder.



TWO-POSITION TONGUE adjusts for road travel or for field operation. It is made of heavy duty tapered box section steel members, and is rope-controlled from the tractor seat.

NEW IDEA'S FULL YEAR GUARANTEE is your assurance you are getting the best possible value for your investment.



where bold new ideas pay off for profit-minded farmers

(Continued from page 12)

I saw evidences of building and remodeling, so I inquired what shape the farm was in when it was purchased.

"Pretty bad," replied Mr. Doxter. "We have remodeled the house, and are still improving the barns. But we did it slowly, from the money we took in. Fortunately, we were able to cut much of the lumber we needed on the farm. Ray Bender, former county agent, used to call me 'The Old Yankee.' He said I was the only man he knew who used so little credit."

"Have you added more land?" I asked.

"Oh, yes," was Leo's reply. "Dad and I have been on this

place 13 years. We started with 50 milkers. Then we had two 12 x 24 wooden silos. Now we have 189 head. We have two silos holding 185 tons each, which we refill; another holds 150 tons, and on another farm we have a wood silo holding 100 tons.

Good Roughage

"We try to grow good roughage. We start haying the last of May, and as you can see from our silo capacity, we feed a lot of corn silage. We have a hay conditioner and bale the hay, but do not have a barn drier — we might eventually."

"I'm very much interested in your comments about getting started on a farm," I said to Leo. "Tell me more about how it can

be done."

"It seems to me that a young fellow can well afford to work for wages either in town or on a farm. If he is thrifty and if his wife wants him to be a farmer, he can save some money. Of course, he can't save enough for a big down payment on a farm, but by showing that he can save he is building up a credit rating.

"Then he might buy a farm (not too big) while he is still working," Leo continued. "He can live on it and begin raising some young stock. When he shows that he knows how to handle money, he will find that he can borrow money. Meanwhile, his net worth is increasing steadily.

"But I'm against borrowing too much. Dad's experience taught me

not to get bigger too fast. It's better to learn as you grow."

"Our bill for labor hasn't been too big," added Robert. "Now we have a four-man business. I'm not here all the time, but Leo's brother-in-law helps. Actually, this is the first year we have had a full-time hired man."

As I left the farm after a pleasant visit, my thoughts went this way:

"Here are a father and son who realize that a good-sized dairy is one way of cutting production costs, but who also avoided rapid expansion and a heavy debt load. I suppose some folks would think them too conservative, but they have done all right."

— by Hugh Cosline



1100 Healthy Milk Producers Thrive on Golden Isle Citrus Pulp

Golden Isle Citrus Pulp, the quality feed that's higher in total digestible nutrients . . . rich in calcium content and other minerals essential to milk production, growth and skeletal development, not only makes champion milk producers, but costs less than similar carbohydrate concentrates.

Golden Isle Citrus Pulp is a dry feed that absorbs water quickly, encourages your cows to drink more water and produces more milk. Ask Wiley Waldrep, a respected pioneer dairy farmer in the South Florida area. He started using Golden Isle Citrus Pulp over five years ago. Since then, his eleven hundred cows have been excellent milk producers.

Order Golden Isle Citrus Pulp for your cows today and watch their production increase. Order through your feed dealer or through our sales agent, Feed Sales, Columbia Nitrogen Corp., 315 Madison Avenue, Tampa 2, Florida. Citrus Product Sales, Minute Maid Company, Orlando, Florida.



"Doc" Mettler Says

(Continued from page 22)

age a veterinarian quicker than to make a call to open a teat or treat a "sick cow" and have the herdsman say, "As long as you're here, 'Doc,' I've got a few lame cows to look at."

An older and wiser veterinarian than I has a good answer for this. He asks the farmer for a flashlight. When the light is handed to him he walks over to one of these cows, shines the light on the foot and says, "Yes, I see. Well, when I get caught up tomorrow morning I'll be in to examine and treat it."

Selective Breeding

We couldn't leave the subject of sore feet without mentioning the future. As stated earlier, selective breeding has done much to eliminate a lot of sore, weak feet and legs. This trend should be continued. No breeding association, nor any breeder, can afford to use a bull that doesn't throw daughters with as good or better feet and legs than her dam. With today's large herds no one has the time to nursemaid the crippled cow any more than they have time to milk the pendulous udder. There are too many good bulls available to risk using one from a cow family with poor feet and legs or, worse yet, one that is known to pass them on to his daughters. If you can find the right bulls to use and breeding progress continues, there will be little need in the future to "look at a few feet."



Now our cows are cool, man, cool!"

American Agriculturist, April, 1965

VEGETABLES

BUILDING FARMSTAND SALES



G. W. Wilder, regional agricultural agent at the University of Massachusetts, has some good hints for successful operation of roadside stands. Here they are:

Attitude

1. Be friendly. One reflects his attitude upon others.
2. Take a personal interest in your customers. Inquire about them, their children, pets — or car if it is new.
3. Learn to call them by name. Everyone likes to be recognized.
4. Be concerned about their wants and needs. Sell the customer the variety or varieties most

suitable for his needs; the saying, "The customer is always right" commands respect, however.

5. Sell each customer something. If possible, do so without offense, but be aggressive.

6. Invite each customer to come back. This tells him that you appreciate his patronage.

Appearance

Salesroom, farm, and sales personnel should be neat and clean. Most people prefer to buy where conditions are tops.

"ALL-AMERICA" VEGETABLES

No matter how much one loves the old tried and true standbys of the vegetable world, it adds to the zest of gardening to try out at least a few new varieties each year.

Into the cabbage family has come "Savoy King," a silver medal winner. It stands heat more than other Savoy, and is fairly disease resistant. The heads are semi-flat, a deep green color (especially in cool weather), and the leaves, of course, are crinkled like those of all Savoy. It is considered excellent for cole slaw.

"Triumph" is a new F1 hybrid cucumber bred and designed for home garden and fresh market use. The fruit is of a uniform dark green color, 7 to 8 inches long, tapering at the stem end. "Triumph" matures early, is resistant to mosaic and tolerant of downy mildew.

Another silver medal winner is a cantaloupe or muskmelon which has been named "Samson." The fruits are heavily netted, ribless, without stripes. The average size is 7 inches long, with a diameter of 6 inches. The flesh is deep orange, thick, juicy, firm, and of delicious flavor. The plants are resistant to powdery mildew and fusarium wilt.

Last, but by no means least, is an Italian-type squash, "Chefini." This is a hybrid, dark-green summer bush squash, with dark green skin and white flesh. It ripens a week earlier than Zucchini, and continues to produce as long as the fruit is kept picked. A few plants will supply a family all season.



"We've just had a two-for-one stock split."

American Agriculturist, April, 1965

Gimmicks to Attract Customers

1. Large sign at farm entrance. Attractive signs draw the attention of potential customers.

2. List of apples grown on farm. Post this in your salesroom. It is an introduction to the kinds of fruit that are available.

3. Provide samples. Use a sign "Try One" or other appropriate wording. This is especially helpful in introducing new varieties.

4. Use your imagination. Draw on the entire family for suggestions. Visit other roadside stands and salesrooms to get ideas.

Complementary Products

1. Sweet cider. Without a doubt the biggest drawing card other

than apples.

2. Jams and Jellies. They make attractive displays.

3. Maple Syrup. A good item on many stands.

4. Gift cartons. Appropriate before Thanksgiving and Christmas.

Advertising

1. Signs on Busy Highways. Used to advertise your farm and direct customers to it.

2. Make Good Use of the Newspapers. One of the most productive forms of advertising. People will travel a long way to buy if they like you and your product.

3. A satisfied customer is your best form of advertising.

Here are 8 other benefits you get from Farm Credit Service besides low cost loans!



On-Farm Service— Farm-reared and credit-trained specialists will come right out to your farm — if you wish — to provide you with prompt financing.



Specialized Service— Men who know farming as well as financing, and who are familiar with your own local special conditions will counsel with you.



Realistic Repayment Schedules— Instead of "You pay when we say," your repayment schedule is planned to fit your ability to repay.



Reliable Credit Source— Money always available when you need it, in good times or bad. You can repay your loan in full anytime before due date without penalty.



One-Stop Convenience— The nearby Farm Credit Service office can handle all your home, farm or business credit needs. No running back and forth, no burdensome paper work.



Business Planning— Skilled financial advisers are always available to discuss your present and long-range business plans, and show how Farm Credit Service can help.



Long- or Short-Term Loans for any farm business and family requirement. Land Bank Mortgage Loans for up to 33 years. PCA Loans for a few months or up to 7 years.



You are Part Owner and voting member of a co-operative credit association when you use Farm Credit Service. You have a voice in its affairs, deal with men who are working for and with you.

There's no extra charge for these valuable extras. Join the many progressive farmers who get the money they need to grow and prosper from their own Farm Credit Service associations.

Farm Credit Service loans cost less, too. Call or drop in and see your local manager as soon as you have the time.

Or write the Farm Credit Banks of Springfield, 310 State Street, Springfield, Mass. 01101.



FEDERAL LAND BANK AND PRODUCTION CREDIT ASSOCIATIONS

BIG FARM BUSINESS

by Hugh Cosline

Some years ago, when I visited the late Ken Bullard on his farm at Schuylerville, Saratoga County, New York, he expressed dissatisfaction with selling fruits and vegetables on consignment. His plan was to establish several roadside markets within a fifty-mile radius of Schuylerville, which he proceeded to do.

A few months ago Ken passed away at a relatively young age. He was well known and liked by New York State vegetable growers. He operated a big farm business

with 140 acres of apples, 175 acres of vegetables, and a small acreage of pears and plums.

I had wondered who was managing the farm, and when I stopped there recently I found that two sons, Dave and Jim, both of whom formerly had excellent jobs in foreign countries, had returned to take over the management. I asked Dave what changes were being made.

"Very few," he replied. "We are operating just about as Dad did, at least until we get our feet on the

ground. We have five roadside markets, which handle about 40 percent of what we raise. We may close one of them which isn't doing too well. During the summer we deliver produce to the stands every morning; later in the season we service them twice a week."

I asked about controlling costs, a problem which seems universal.

"We are getting away from the Eastern apple box," said Dave. "We use a 17 bushel tote box for a lot of apples. It is supplied by buyers, and the fruit is sold in the orchard. What apples we don't sell right in the orchard are sold here to brokers. We have storage space for 40,000 boxes.

"One change we are making," continued Dave, "will be to buy

small vegetables and strawberries for the stands rather than to raise them. We plan to continue growing melons, sweet corn, and tomatoes.

"The new apple trees are set closer, 30 x 40 feet. The older orchards were 40 x 40 feet, and in some of them young trees have been set in the row so the trees are 20 feet apart with 40 feet between rows.

"We hire the fruit dusted by airplane. It cuts our investment, and while it would take four to five days to cover the orchards with a speed sprayer, an airplane can do the job in 40 minutes. This speed of application is often important in controlling diseases and insects.

"Melons are an important crop with us. In 1964 on 22 acres we grew them under black plastic, which cut costs and conserved moisture during the drouth."

It looks to me as though the boys are doing a job. I am sure that the many friends of Ken Bullard join me in wishing them all success.

PLANNED HARVESTING

From data collected in Ithaca over the past twelve years, Professor G. David Blanpied of the New York State College of Agriculture has worked out a schedule for harvesting of McIntosh apples.

For example, his research indicates that if the apple trees are in full bloom on May 5, the fruit will be ready for harvest about 138 days later — or around September 21. Similarly, if in full bloom May 25, harvest date will be around September 27.

Naturally, the best time to pick the fruit may vary a few days from the date, but by having a date growers are alerted to observe the color of the fruit and to note whether apples are beginning to drop.

The research has taken the cooperation of growers and county agricultural agents in twelve test areas of the State, including the apple-growing regions of the Hudson and Champlain Valleys and Lake Ontario. In addition, Maine and Michigan (both famous for apples) have pooled their data with that collected in New York State. The same projected harvest dates apply to Maine and northern areas of Michigan, but differ in south Michigan.



APPLESHAKE

Charles Truscott, 53 Spruce Street, Oneonta, New York, reports that some years ago his boys used to put several spoonfuls of applesauce into milk and then give the mixture a vigorous shaking in a jar or with an electric mixer. He comments that the whole family enjoyed it immensely, and wonders if there might not be a possibility to promote the sale of applesauce and fluid milk with this combination.

American Agriculturist, April, 1965

Now—
control
winter
dysentery
without
milk loss

...use

neomix



Doesn't contaminate the milk, no need to discard milk during treatment

Why throw away milk during winter dysentery treatment when you don't have to?

Neomix works effectively against winter dysentery without contaminating the milk. You can sell all the milk you get during treatment, instead of having to pour it down the drain.

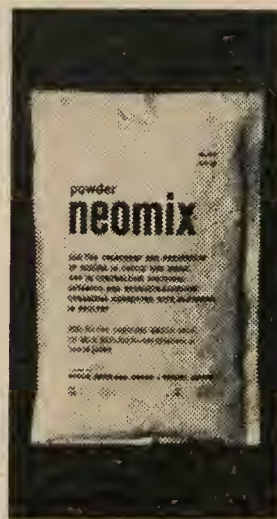
And, Neomix also lets you exercise control against this costly disease throughout the winter months without interrupting your milk production.

Equally important, Neomix works where it can do the most good. 97% of it remains in the digestive tract where the dysentery-causing bacteria are found.

Further, Neomix has a wide range of antibacterial activity to offer greater potential in controlling winter dysentery.

Neomix is economical and it works fast. Remarkable results can frequently be seen in 24 hours.

Milk is money. Why throw it away? Try Neomix now for effective control of winter dysentery. It works.



Buy Neomix in these convenient sizes: 8-oz. packets of Powder, 25 Gm./lb.; 2/3-oz. packets of Concentrate, 325 Gm./lb.; and in 1 and 5 lb. bulk containers for herd feeding in both Powder and Concentrate. **Typical treatment:** Sprinkle 1/2 packet (1 tablespoonful) of Neomix Concentrate or 1/2 packet (4 ounces) of Neomix Powder over the feed to be consumed by one cow each day. For water treatment, add 1/2 packet of Neomix Concentrate or Powder in the amount of water consumed daily by each cow.

**MICHIGAN
AGRICULTURAL
COMPANY**
RICHLAND, MICHIGAN

CHEAPER BY THE GALLON?

by G. L. Conklin

I'M ALWAYS puzzled by the fact that many first class farmers in the Northeast have bought liquid "foliar" fertilizer by the barrel for use on their crops. Maybe you've heard all the arguments against this practice, and are still determined to buy some more, but here are the facts obtained from visiting with college specialists, county agents, and fertilizer industry people.

Let's take the plus side of liquid fertilizers first. Fruit growers have long used foliar sprays on fruit trees . . . for a quick shot of nitrogen or to provide some trace elements that were needed in a hurry to stimulate the tree. However, the major portion of fruit fertilization is done by ground application and is taken up through the roots rather than through the leaves.

Vegetable growers also use foliar sprays to supply such elements as zinc, copper, manganese, iron and boron. Here again, the major elements (nitrogen, phosphorous, potash) are normally supplied from soil applications.

On many field crops, such as wheat and corn, a liquid nitrogen solution is used . . . the trade often speaks of it as "solution 32" because it is 32 percent nitrogen. It is often used to topdress wheat, some of the spray going on the plant, and some on the ground. Actually, though, practically all of it is absorbed through the roots, because that which is sprayed on the plant washes off and goes into the ground.

Plant Structure

You see, plants aren't put together in such a way as to absorb any quantity of plant nutrient through the leaves, any more than you absorb water through your skin when you go swimming. They will take up a limited amount of trace elements and those major elements I mentioned through the leaves, but plant roots are specifically engineered to absorb nutrients from the soil and transmit them to the rest of the plant.

Now we come to liquid complete fertilizers . . . ones carrying nitrogen (N), phosphorous (P) and potash (K) plus, in some cases, some trace elements. In the Midwest, complete liquid fertilizers have been used for a number of years, and costs per pound of plant nutrient are often competitive with that of dry formulations. The decision really boils down to a simple question of arithmetic . . . what you pay per pound of plant nutrient.

Let's take an example: suppose a ton of dry fertilizer with the analysis of 10-20-20 costs \$90. The analysis says that it is 10 percent nitrogen, 20 percent available phosphorous and 20 percent potash. In other words, a ton of this fertilizer is 50 percent plant nutrients, or 1,000 pounds of them. Dividing \$90 by 1,000 gives the

cost per pound of plant nutrient of 9 cents.

To calculate the cost of fertilizer in liquid form is similarly simple if you know the analysis, the price per gallon, and the weight per gallon. For instance, if one gallon of liquid 5-10-10 costs \$3 per gallon and the liquid weighs 12 pounds per gallon, then the cost of plant nutrients per pound is one dollar. Twenty-five percent of the total weight is plant nutrient (5+10+10), giving three pounds

of plant nutrient per gallon; three pounds divided by three dollars gives that fancy price of one saw-buck per pound.

Apply Principle

This a purely hypothetical example; it is possible to buy higher-priced dry fertilizer and lower-priced complete liquid fertilizer. But the principle remains the same, and anyone considering purchase of any fertilizer (even for your lawn) should do a bit of pencil pushing to find out where he gets most for his dollar.

Here's the sales pitch for the so-called foliar or leaf-feeding fertilizers, and some of the holes in the argument:

1. Leaf feeding puts the fertilizer

where the plant most needs it . . . in the leaves (but they neglect to point out the very small quantity of N, P, or K that can safely be applied in any one application, or the small quantity that can be absorbed by leaves in a given period of time).

2. Low cost per gallon (but that arithmetic I mentioned may lead you to the surprising conclusion that you're paying as much as ten times more per pound of plant nutrient).

3. Salesmen point out "test" plots to show that leaf feeding "greens up" a crop but they neglect to point out that this might have been accomplished at a much

(Continued on page 39)

AMCHEM PRODUCTS, INC., Ambler, Pennsylvania



FOR maximum growth and higher yields, control vegetation around the trees in your orchards. You can do an outstanding job—and save labor and production costs—if you use Amizine herbicide.

Just one Amizine application around the base of each tree kills existing weeds, and prevents new weed growth for most of the summer. Apply before fruit starts to form—follow label directions.

You'll find Amizine easy to use—non-flammable, odorless, non-corrosive to metal, and containing no arsenic. Marketed as an economical wettable powder concentrate.

So get more weed killing power for your money—get top kill, root kill and residual protection against weed regrowth. Get Amizine herbicide today from your supplier.

amchem

First Name in Herbicide Research

NEW YORK AND PENNSYLVANIA



Members of the Executive Committee of the New York Holstein-Friesian Association for 1965. Left to right: Newton Sweetland, Cazenovia; Donald Sheldine, Adams; Joseph Fisher, Canastota, 1st vice president; Everett Jones, Millerton; Kenneth Patchen, Locke, president; Avery Stafford, Peru, 2nd vice president; Adrian Personius, Ithaca, treasurer; Charles Replogle, Ithaca, assistant secretary; and William J. Baldwin, Ithaca, executive secretary. Donald V. Crowell, ex-officio member of the Executive Committee, was not present for the picture.

Consolidation — Robson Quality Seeds, Inc., Hall, New York, and Edward F. Dibble Seedgrowers of Honeoye Falls, New York, two well-known and long-established seedgrowers, have consolidated. The expanded line of seeds will be marketed under the name of Robson Quality Seeds, Inc. Facilities both at Hall and Honeoye Falls will be continued.

Holstein-Friesian Award — The only Holstein-Friesian Progressive Breeder's Award ever given to an agricultural and technical college for an outstanding herd went to Cobleskill's (New York) Agricultural Division recently. The award is made on the achievement of high standards of production testing, herd classification, and health.

Joins ABS — Merrill Palmeter, Stanley, New York, was appointed to represent American Breeders Service, Inc. in Ontario and Yates counties. A native of Nova Scotia, Palmeter operated a farm there before coming to the Empire State. He has served as herdsman for several well known herds in the Finger Lakes area, and for the past two years has been an ABS technician in Cayuga County.

Peace Corps — There is still time to sign up for the Agricultural Task Force of the Peace Corps which is being recruited by New York's county 4-H Club agents. Service will be in Brazil and Sierra Leone, and volunteers may be married or single, over 18 years of age, with practical agricultural and home economics skills. Closing date is April 15. For information, contact your 4-H Club Office of the County Extension Service.

Leading Apple Variety — In Pennsylvania during 1964 the leading

apple variety was York Imperial, with 2,320,000 bushels, or 23 percent of the 10,000,000 bushels produced in the State. Stayman was second; next was Rome, then Delicious, Golden Delicious, Jonathan, McIntosh, Cortland, Grimes Golden, Northern Spy. Black Twig and Baldwin were equal, and Wealthy was at the end of the line with 50,000 bushels.

Proposed Marketing Order — Hearings are under way to consider a proposed marketing agreement and order for red tart cherries grown in New York, Pennsylvania, West Virginia, Maryland, Michigan, Wisconsin, Ohio and Virginia. The proposed program was recommended by the National Cherry Growers Council to provide a more even flow to market.

Meantime, Pennsylvania tobacco growers who produce cigar filler again have disapproved marketing quotas. The referendum returns showed 88.2 percent against, 11.8 percent for the quotas. Cigar filler (type 41) is grown only in Pennsylvania.

Pulpwood Purchases — Masonite Corporation, Wysox, Pennsylvania, expect to purchase beech, birch and maple pulp, 4 to 16 inches in diameter, 6 to 8 feet in length, for use at its new plant, beginning possibly by June. They will purchase at the rate of 600 tons per day. All purchases of wood will be green and rough (bark on). The price is not yet determined.

The radius of supply will be approximately 50 miles, reaching into several southern tier counties of New York State. For further information contact the local county agricultural agent for Bradford County, Pennsylvania. The offices are in the Court House, Towanda. You can also contact Del Stamer, Masonite Corporation, P. O. Box 35, Wysox, Pa.

(Continued on page 33)

American Agriculturist, April, 1965



Want a corn
for high-yield silage?

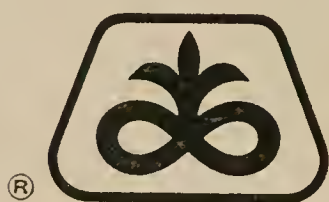
PIONEER'S
got it!

Here's what you're looking for in a silage corn: Lots of leaf, plenty of grain, vigor to stand thick planting.

Your Pioneer Salesman can give you a wide choice of varieties with these features that add up to top-tonnage silage.

This means there's a Pioneer corn to fill your silo with minimum acreage. (If your harvesting plans change, these same hybrids will give you high grain yields). Pioneer has the full-line you need to make the most of your corn-growing conditions.

PIONEER CORN COMPANY, INC.
221 NORTH MAIN STREET • TIPTON, INDIANA 46072



PIONEER
BRAND
SEED CORN

® REGISTERED TRADEMARKS OF PIONEER HI-BRED CORN CO.

Officers — Officers of the New York State Poultry Industry Coordinated Effort (SPICE) for 1965 are: Ralph H. Webster, Auburn (who succeeded himself); Dr. Jack F. Hill, Ithaca, vice president; Dr. John C. Huttar, secretary-treasurer. Dr. Huttar was also elected a director, along with Mr. Alem Smith, Beacon Feeds, Cayuga, New York.

Construction Plans — Construction plans for buildings suitable for a weekend retreat, or for campgrounds are available from Cornell University. The plans are for an "A" frame cabin supported on piers, 20 feet wide at the first floor; however, it can be built with a depth of 24 or 36 feet.

The 24-foot cabin has a living room, kitchen, bath, and front and back porches on the first floor; on the second, two bedrooms (each large enough for twin beds), and two balconies. The 36-foot cabin plans include a bedroom on the first floor and part of the living room open to the roof. Either set of plans costs 75 cents.

Also newly available are plans for a machinery storage and shop building 84 x 30 feet, that provides space for the shop on one end. Plan No. 5849 is available for 25 cents.

Leaflet RRD-9 is a sample floor plan for a small utility building measuring 20 x 20 feet. It is suitable for a small grouping of tent sites or a travel trailer court.

Plans may be ordered from the Extension Plan Service, Riley-Robb Hall, Cornell University, Ithaca, N.Y. 14850. A leaflet describing each building is also available from county Extension Services offices.

Elections and Appointments — Allan A. Ryan, Rhinebeck, New York, elected president of the American Angus Association; Foster L. Child, Malone, New York, appointed manager of the Gouverneur Stockyards of Empire Livestock Marketing Cooperative; Bernard W. Potter, Truxton, New York, new president of the "American Dairy Association and Dairy Council of New York"; Howard Baker, a prominent Niagara County apple grower, has been named to a national apple grower-processor relations committee by the American Agricultural Marketing Association. The AAMA is the marketing affiliate of the American Farm Bureau Federation.

Research Highlights — Here are some of the new "findings," methods and discoveries that came out of research at Cornell University during the year 1964:

- A new method for prolonging the life of fresh eggs by packaging them under high vacuum. It also extends high hatchability rates from 7 to 10 days to 34 days prior to egg incubation.

- A new growth-retarding compound for "shrinking" apple trees. It is sprayed on and terminal growth slows down, making it possible to enlarge the number of trees in an orchard.

- The young female water flea is quick to detect minute quan-

ities of insecticides. The scientists have found a means of rearing water fleas, which will prove helpful in measuring pesticide residue on crops.

- Agricultural engineers came up with a device for applying granular-type pesticides to field crops evenly.

- New steps were taken in the battle against animal, human, and plant diseases. Several methods were put to use in combating flies, grubs, and other cattle pests. And new food products, including a successful chunky-type chicken bologna, were marketed.

Measurement Science — Metrology — the science of weighing and measuring — has always played an integral part in business trans-

actions. From Bible times onward, weighing devices have been necessary in man's dealing with man.

Late in 1963, the Scale Manufacturers of the United States suggested that a college curriculum be established in Measurement Science. The State University Agricultural and Technical Institute at Alfred, New York, thought that the suggestion had merit, and in September of 1964 the first class of students began studying. Along with a heavy dose of mathematics, physics, drafting, and English, they will study electronics, analytical mechanics, strength of materials, legal metrology, and many others. Already firms are extending offers of positions for them — and ample summer employment.

International Award — At the 1965 Dairymen of the Year Award

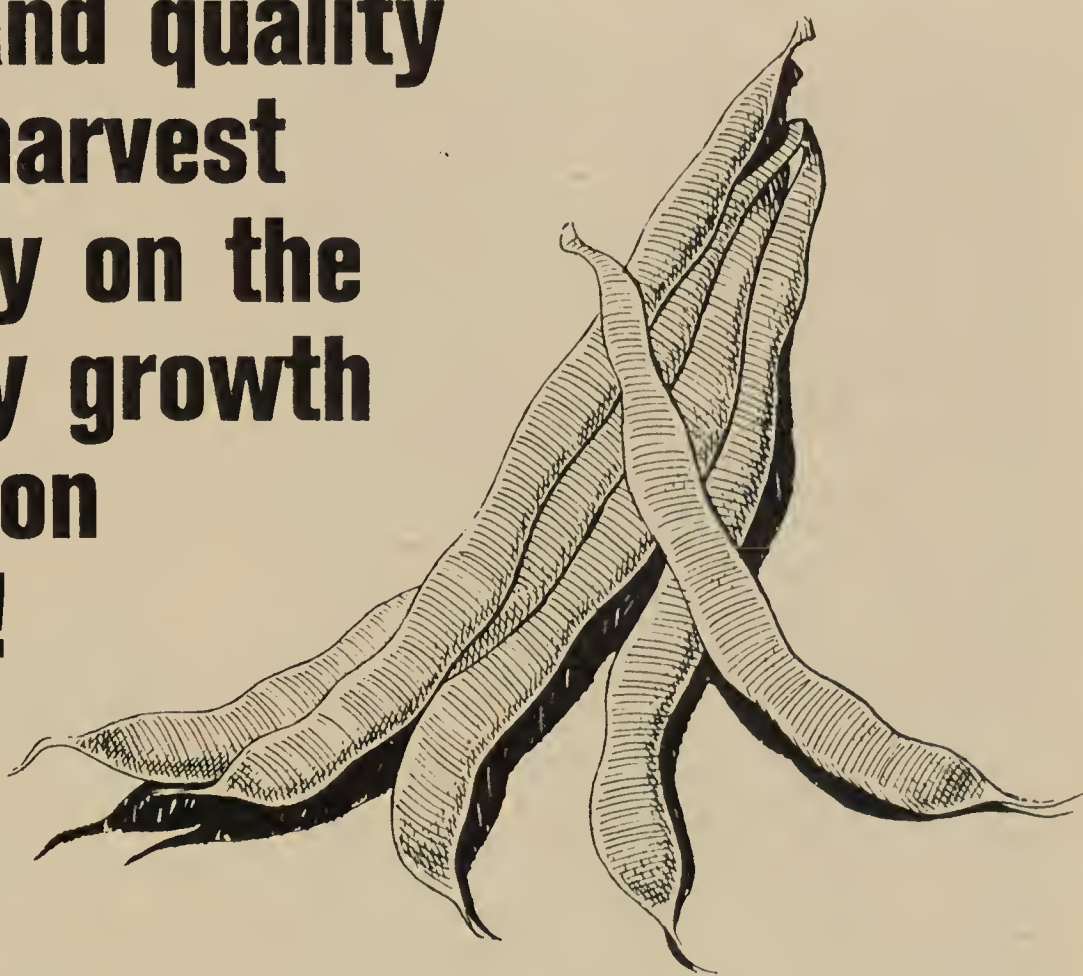
meeting of the Chore-Boy Manufacturing Company, Allen B. Crego, Baldwinsville, New York, was named Eastern Regional Award Winner. Mr. Crego was elected by vote from a field of more than 50 dairymen-nominees.



ALLEN B. CREGO

The Crego farm maintains a dairy herd of 60 cows, and plans extension to handle 100. He has had a herringbone system since 1957, and this year is adding a free stall barn.

The quantity and quality of your bean harvest depends largely on the degree of early growth insect protection plants receive!



Di-Syston Systemic Insecticide protects bean plants against aphids, mites, thrips, leafhoppers and Mexican bean beetle larvae up to 8 weeks and often longer.

Di-Syston is a systemic insecticide that is applied to the soil. The chemical is absorbed by bean plant roots along with soil nutrients and travels throughout the sap stream to protect all parts of the plant. New growth is protected as it forms. Protection against insect pests and mites lasts up to 8 weeks and frequently—depending on growing conditions—growers experience seasonal control from a single Di-Syston application. Di-Syston performs an additional service by killing insect vectors of certain virus which cause diseases common to beans.

Di-Syston is available as a granular and liquid concentrate and offers growers versatile methods of application. For example, the granular formulation can be applied in the soil at planting time or side dressed after emergence. Di-Syston Liquid Concentrate can be applied as a soil injection in water emulsion or with liquid fertilizer either at planting time or after emergence. Di-Syston is recommended for use on snap beans, green lima beans and dry beans. Your dealer stocks Di-Syston. See him before you plant.

1535



CHEMAGRO CORPORATION

KANSAS CITY 20 • MISSOURI

PROFIT AND PRIDE

So great are the advantages in working with purebred cattle over grades that I feel there is little to be said in defense of the grade cow.

Let us start at the beginning, the purchase of the dairy cow. Only here can you benefit by a slightly lower price for the grade. With a lot of luck you might get yourself a good milker. But that is where the whole advantage stops.

With the purebred cow you are not buying "hit or miss." You have not only purchased a good

dairy cow, but also you have definite knowledge of her inheritance . . . you have breeding dependability. From here on you can work to breed out any undesirable qualities, as well as to breed in improvements.

Secondly, you have in most instances purchased an animal of superior type, and this means longevity. Finally, you have purchased what I feel is one of the few reasons for staying with this rigorous life of fighting the elements . . . you have purchased an aesthetic satisfaction which makes life a greater joy; you have pur-

chased beauty . . . and a challenge as well.

For the young farmer who hopes to spend his future building a business, improving his farm, and finding happiness in his work, there is no question but that he should work with the purebred. During his active years he will always have a market for his cattle, young and old; with grades his only market is for the bred and milking female. Later on, when he is ready to draw the curtain on his work, he will have something worthwhile to offer for sale. If he has been a wise and successful breeder he will find that other breeders and fanciers will literally "beat a path to his doorstep."

Don't forget that with every purchase of a purebred animal you are purchasing the results, not of just one, but many breeders' efforts and brainpower, farmers who have put years of study, thought and money into her development.

As final proof of my argument for the purebred, I would like to ask: "Why the artificial breeding co-ops of today?" Surely no one can dispute the astounding job they have done to up milk production and type all over the world. — *Felicie Hall Langridge, Tivoli, N.Y.*

HAIL DAMAGE

We had a good 1964 apple crop, but a hailstorm did considerable damage. Fortunately, because of good size and color, and careful grading, we were able to market a good part of the crop as fresh fruit.

We sold a total of 13,000 bushels for cider, but still stored about 725 bushels per acre (instead of the 900 we had expected). We do most of our grading and packing by hand.

We carry a small amount of hail insurance, although we haven't had bad hail damage for several years. However, the premium is almost prohibitive, and I doubt that the amount of hail insurance will be greatly increased.

On January 14 the first load of our own CA apples arrived in New York. We got 35 cents a bushel more than for apples from common storage, a little more than enough to pay costs. Of course, the big advantage of CA storage is lengthening the season for Macs.

There has been some talk in past years that growers might overdo controlled atmosphere storage and thus knock down the price. As far as I can see this is not happening. There is some increase in CA storage, and I think there will be plenty of demand for the apples.

The trend in the Champlain Valley is for fewer and bigger orchards. Our yields have been higher than other areas. Another trend is to closer setting. Back in 1930 I started to set 66 trees per acre.

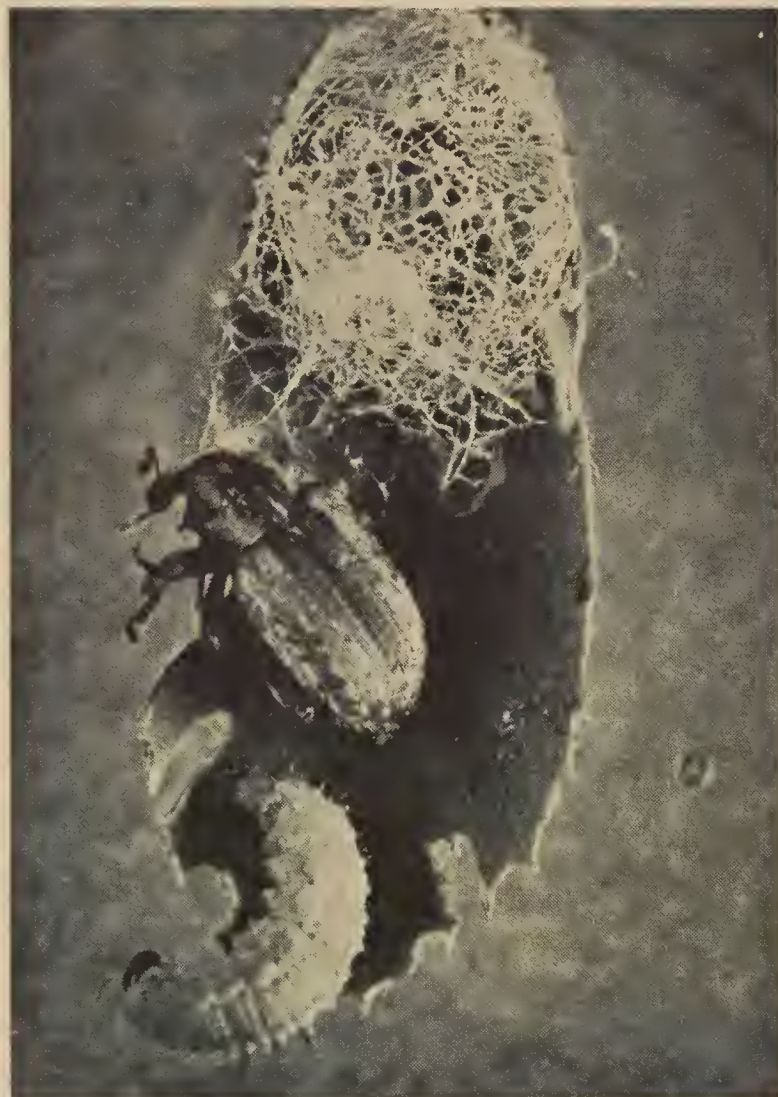
Growers are interested in a new process for controlled atmosphere storage. The air is modified and pumped into the storage. A grower can open the storage, remove some apples. Then the storage is closed and in 24 hours the atmosphere is back to the right storage condition. — *Arthur Burrell, Peru, N.Y.*

NEW BARN

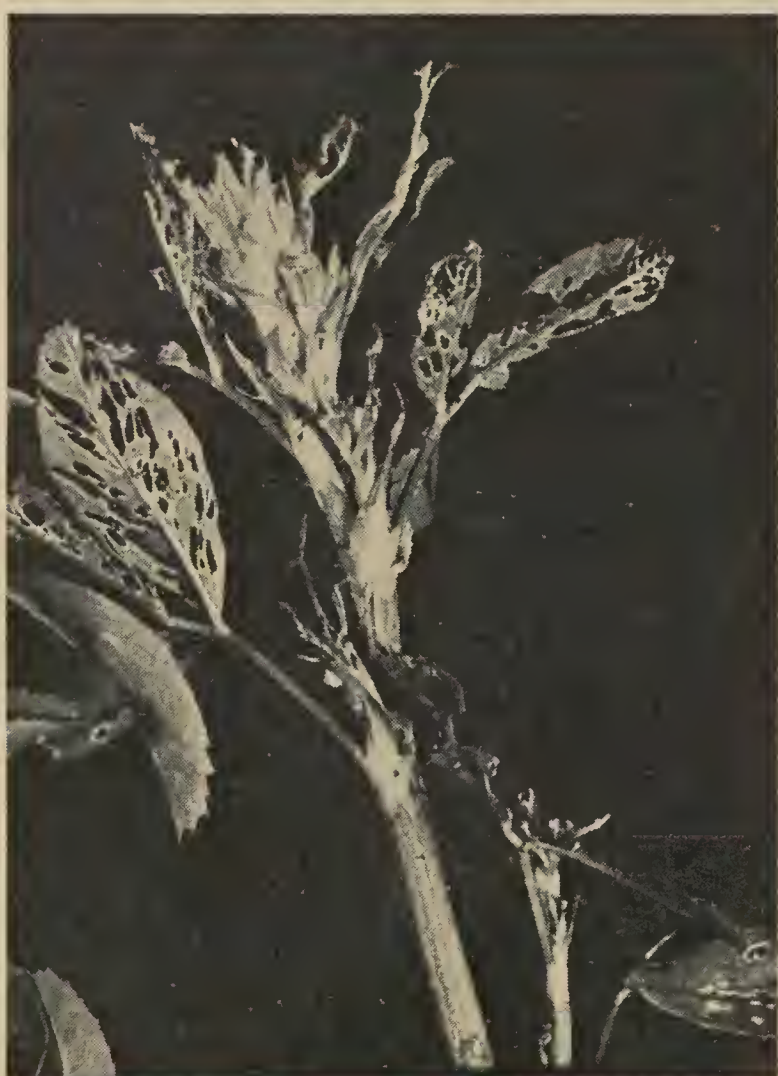
In the November issue of *American Agriculturist* you carried a story about our new barn. Perhaps your readers will be interested in our experience with it. We have 230 cows in free stalls and two men do the milking in two double-three milking parlors in three hours. Production is better than in the old barn and we have less mastitis.

During the winter's zero weather
(Continued on next page)

American Agriculturist, April, 1965



Tiny grubs—big appetites. Green larvae with white stripes grow to a length of $\frac{3}{8}$ "; adult weevil varies from brown to gray with a black stripe, are $\frac{3}{16}$ " long. Adults shred leaf edges on later cuttings, then over-winter and lay eggs early in the spring.



Damage from the weevil. Note the riddled tips and skeletonized alfalfa leaves. The pest often ruins the first cutting. On all chemicals, follow labeling instructions and warnings carefully.

*An important message
from Du Pont about the*

Alfalfa Weevil and what to do about it!

Spray your alfalfa with safety; and without the fear of residues in milk. Play it safe, spray it safe; spray with this combination:

METHOXYCHLOR
plus
MALATHION

Recommended in the northeastern states, these two insecticides are combined in a convenient ready-to-use liquid formulation by:



the barn was closed by the exception of the 6-inch wide opening under the eaves. The inside temperature runs around 15 degrees above that outside, and freezing of manure has caused some trouble. I made the mistake of putting some frozen droppings in one of the underground manure tanks, thinking the warmth of the soil would melt it. Instead, the ground acted like a thermos bottle. It remained frozen and I think I will rent a portable boiler and thaw it with steam.

Meanwhile, we are using a scoop on the tractor to clean the barn and dump the manure direct-

A GOOD BEE REPELLENT

The Food and Drug Administration has approved the use of benzaldehyde as a repellent for removing bees from honey supers. E. J. Dyce, professor of apiculture at Cornell University, says that tests have proved that this is one of the best all-around materials for this purpose, especially effective on cool, cloudy days. The slight almond odor of the chemical disappears in about 24 hours.

Benzaldehyde is a light-colored liquid that breaks down when exposed to light and air to form benzoic acid. It leaves a whitecrystalline material on the fumeboards that should be washed off every day or two. It should be kept tightly sealed and away from light, but is not considered toxic or nearly as dangerous to use as carbolic acid. However, it can cause skin irritation; in case of an accident, the skin, and especially the eyes, should be flushed with plenty of water.

Sprinkle Fume Boards

The fume boards are sprinkled lightly with one or two table-spoonfuls of benzaldehyde. It is usually necessary to add a little more every hour or two; benzaldehyde vaporizes fast, and special care must be taken when using it on bright, warm days. On such days the boards should be covered with insulation and placed cross-wise or at an angle on the supers to allow considerable air to enter, otherwise the bees will become confused and remain in the supers.

It is wise to give the bees a few puffs of smoke before adding the fume boards on cold as well as on warm days. This starts them downwards, and they are less inclined to become confused.



"I have a problem that's been bugging me for some time."
American Agriculturist, April, 1965

ly into the spreader. Perhaps our experience will be helpful to anyone planning to build this type of barn along with an underground tank to hold liquid manure. We have no ventilating fan and feel that closing the barn tighter than it now is would cause a moisture problem. Aside from the manure problem, everything is fine. We are milking more cows with one less man. — Philip Scudder, Painted Post, New York

LIKES BUNK SILO

Our barn burned in 1961 and we built a pole setup with a feeding area and a loafing area. In 1964, we added a 40 by 80 foot area and put in 100 free stalls. We buy

baled straw for bedding, and it takes considerably less since we put in the free stalls. We have considered putting up a tower silo, but decided to stick with bunkers. We have one 110 x 32 x 12 and plan to build another one in 1965. Some time ago, we tried letting the cows eat their way into the bunk silo, but found there was considerable waste. If we moved the electric fence slowly enough so they would clean up the silage as they went, we felt that many of the cows didn't eat as much as they should. Now we use a scoop on the tractor to dump the silage directly into bunk feeders. In addition to corn, we have put grass and haylage into the bunk. With haylage

we chop the top layer green so it will pack and then cover it with plastic. We figure there is about 2 inches of spoilage on top. What the cows don't eat we clean out and it goes back on the field along with the manure. We have tried direct seeding of meadows but for some reason the results did not satisfy us. So we plan to seed with oats, cut them green and put them in the silo. Along with our farming, we plan to have some fun. Maybe if we stayed home all the time, instead of taking off for a weekend or a longer trip, we might get a little higher production per cow . . . but we don't plan to do it that way! — Dave Hardie, Ludlowville, New York

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Solve your feeding problems with the feed that supplies digestible nutrients at the least cost. Florida Citrus Pulp is now in abundant supply for your feeding program . . . thus assuring the "best of feed" for your herd. Florida Citrus Pulp is not only high in T.D.N. (74%) but is also one of the lower cost feeds when prices are checked over a period of time, and particularly when checked as to cost per 100 pounds of T.D.N.



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Content	% Protein	% Fat	% Minerals	% Fiber	% N.F.E.*	% T.D.N.**
Citrus Pulp	6.0	3.0	4.2	16.0	55.0	74.0
Beet Pulp	9.2	0.5	3.4	19.8	57.2	67.8
Snapped Corn	8.0	3.0	2.4	10.6	64.8	67.8

(* Nitrogen-free extract ** Total Digestible Nutrients)



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THE SURE ONES!

Pick a rainy day for a demonstration of our new Flail Choppers

That's when International Harvester's new Auger-Blower Flail Choppers really step away from the others. You'll see big-capacity chopping that isn't bothered a bit by morning dew, mist or driving downpour.

And what you've chopped will be noticeably better than the chop other machines turn out because it will be finer. The reason for this is that the double-cutting rotor—with 68 L-shaped knives mounted in pairs on the six-foot cut No. 8 model—turns at a high 1578 rpm. You chop faster.

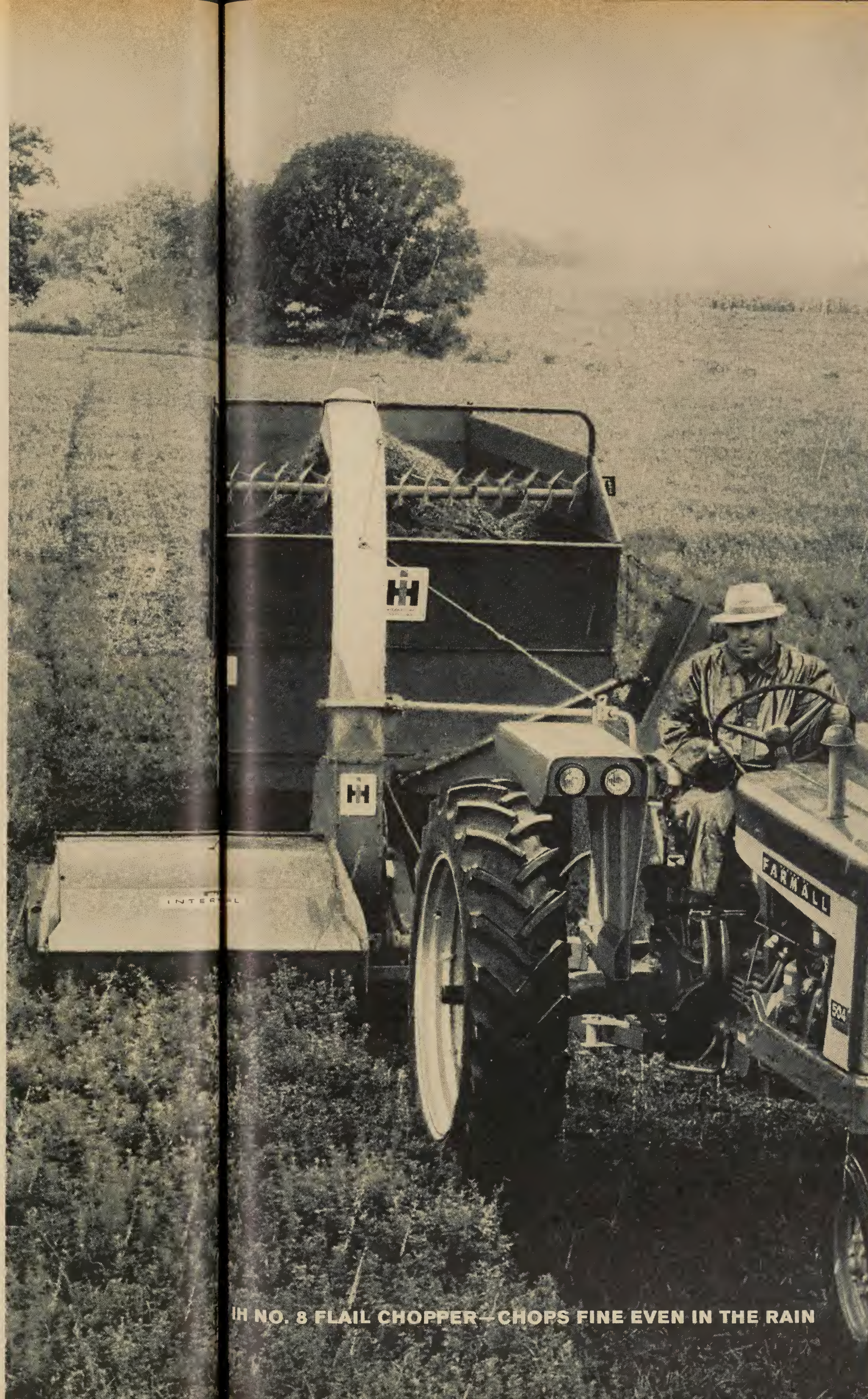
This finer chopping is important in terms of the total digestible nutrient (TDN) your animals consume. Fine-cut feed is more tasty. They'll practically climb into the feeder to get every last bit.

On top of all this, the new IH Auger-Blower Flail Choppers give you every possible convenience for non-stop, low-cost operation in every situation.

So put a rainy day to good use. See your IH dealer and get him out to demonstrate either the IH No. 7 with 5-foot cut or the big IH No. 8. Don't forget to ask him about "pay-as-you-grow" financing. International Harvester Company, Chicago, Illinois, 60601.



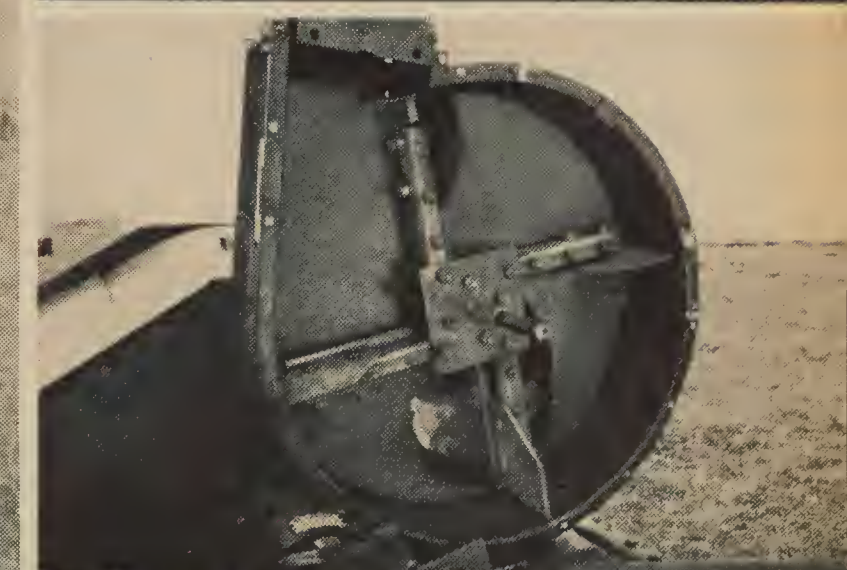
The people who bring you the machines that work



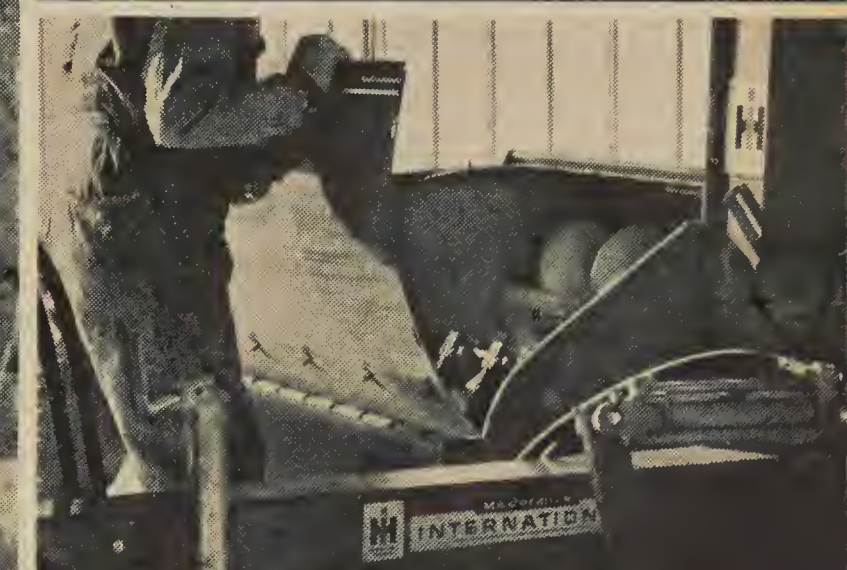
IH NO. 8 FLAIL CHOPPER—CHOPS FINE EVEN IN THE RAIN



Exclusive non-plug design lets you cut finer, faster. The IH No. 7 has 56 reversible, individually replaceable knives where most other 5-foot machines have 34 knives.



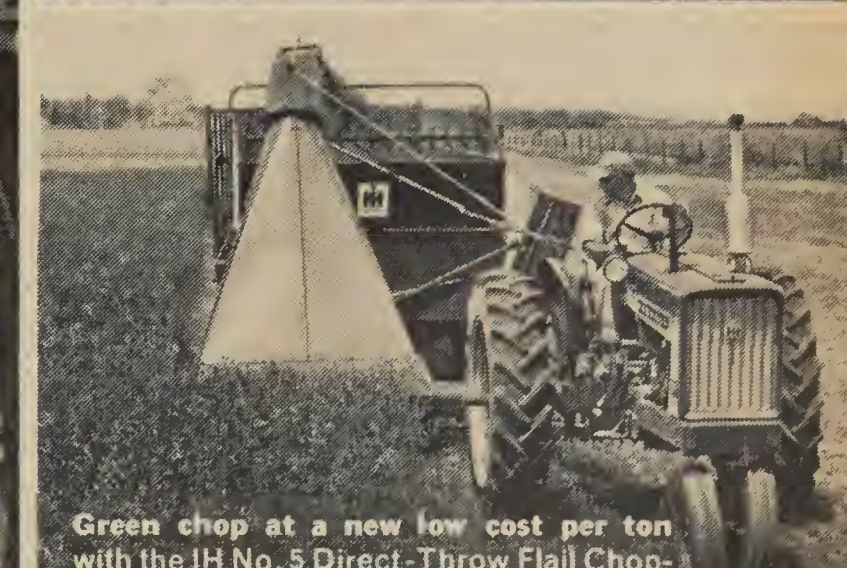
Exceptional blowing power with standard 4-paddle fan and specially engineered spout lets you load the back corner of your wagon with the heaviest, wettest crop.



Hinged rotor cover provides full access to knives and rotor. And knife-locking strap system on rotor prevents ever throwing a knife and eliminates wear on rotor.



Shred stalks—simply by opening the rear auger cover. Or you can rear or sideload chopped stalks or straw for livestock bedding. Shred twice as fine as a rotary cutter.



Green chop at a new low cost per ton with the IH No. 5 Direct-Throw Flail Chopper. Fine-chop cutting with cup-shaped knives on exclusive double cutting rotor.

BHL



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WHY TALK ABOUT TILLAGE?

by Hugh Wilson*

Spring is too wet;
Summer's too hot.
Fall is soon over;
Winter is not.

TERRY McGOVERN was a prize fighter who was famous for fast knockouts. When asked how he put his opponents away so quickly, he replied: "I hook with my left and cross with my right. Then if he doesn't fall, I go behind him to see what's keeping him up."

* Extension Soil Conservationist, Cornell University

New York weather also has a one-two punch. The left hook may be a cold wet spring that delays work and slows plant growth; the right cross is often a summer drought that continues to cause damage until the plant is knocked out by fall frost that sneaks up when you least expect it.

During the past two years the growing season has been even shorter than usual. For instance, at Ithaca there were one hundred and thirteen days between frosts in 1963 and only one hundred

and three in 1964. What with the typical wet spring and dry summer, it takes real management to produce good crops in that length of time. Minimum tillage is an important part of this management and, although it sounds like double talk, helps in both the wet and dry situations.

The reason is that minimum tillage allows more of the excess spring rain to drain from the top of the soil. As a result, the surface is warmer and drier, which permits earlier planting and faster growth. This in turn helps develop husky plant roots that can utilize water stored throughout the entire soil profile. Plants with such roots can withstand considerable drought, which is the reason for the state-

ment that "properly tilled soil is second only to the sea as a reservoir for water."

Of course, what constitutes "proper tillage" varies with the crop, the soil, and the time of year. However, it usually involves plowing, followed by some kind of secondary fitting to smooth, firm and granulate the seedbed.

Plowing

In humid regions such as ours the moldboard plow is the most popular primary tillage tool because it lifts, turns, loosens and indirectly warms the soil. Where there are tight soil layers, a deeper root zone can be obtained by deeper plowing. Where stones and bedrock do not interfere, many farmers are plowing deeper, some as deep as twelve inches. However, if the root zone is already sufficiently open, there may be no advantage in going to a depth of more than seven or eight inches.

Tile drain effectiveness may be greatly increased by putting the tile lines in the draws, then plowing across them with the furrows on a slight grade. In experimental plots this method has maintained good alfalfa on very wet soils where the check plots completely winter-killed. When combined with deeper plowing, the graded furrows have permitted field work at least two weeks earlier than usual.

Fall or Spring?

The question of fall vs. spring plowing is often good for an argument. However, it's usually agreed that plowing clay soil in the fall reduces lumpiness and is beneficial. There is probably no reason for fall plowing gravel soils, though. So the question centers on the loams and silt loams that are found on most upland fields. I believe that where these soils are plowed deep, minimum-tilled, and planted early, it may be desirable to fall-plow them. However, this is mostly an opinion.

Disking before plowing is desirable where there is lumpy soil, tough sod, or tall grass. Time spent disking beforehand is not wasted since it permits better plowing and saves later fitting. Some of the requirements for good plowing are: (1) freedom from balks and skips; (2) furrows crowned to facilitate drainage; (3) trash buried and (4) adequate depth. To meet these requirements a plow must be correctly adjusted and operated.

In the finished seedbed there should be firm, well-granulated soil close to the seed, some surface lumps to reduce crusting, and no large air pockets. In the spring when water is abundant it is desirable to firm only the soil adjacent to the seed and leave the rest loose enough to allow good drainage. But in hot dry weather it is preferable to reduce evaporation by firming (but not compacting) the entire soil surface.

Possibly the greatest advance in secondary tillage is the practice of pulling an implement such as a clodbuster or spiketooth harrow behind the plow to reduce air

(Continued on page 39)

Keep corn rows clean...



without soil residue problems



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pockets, break lumps, and partly smooth the surface. Because soil is usually moist at the time of plowing it is easily worked, so a tool like a clodbuster is more effective than heavier equipment would be later on.

Dual Tires

Another desirable trend in fitting is the increased use of dual tires on tractors. Without duals on soft dirt it may be necessary to go over a field several times just to erase the tire tracks! And by that time the entire surface may be as tight as it was before plowing.

For early spring seeding a cultimulcher and a grain drill equipped with press wheels make an excellent combination. The cultimulcher with its spring harrow

teeth and corrugated roller prepares a shallow and well-granulated seedbed, often in one trip. Press wheels on the grain drill can be adjusted to plant the seed at the



desirable 1/4 inch depth and provide the right amount of firming. If this equipment is not available use a disk or springtooth, set it shallow, follow with an ordinary drill, and cultipack after seeding.

For large seeds such as corn, the fitting provided by a clodbuster may be all that is needed. If there is doubt, one harrowing will do no harm, but several might actually reduce yields. Remember that the planter shoe and ground wheel do considerable firming and granulating, and that weathering will continue to break down soil particles all season.

More tillage is needed at some times than at others, so minimum tillage is merely doing no more than necessary. When combined with other good practices such as good seed, proper fertilizing, and weed control, it almost always results in higher yields, lower costs, and less trouble from bad weather.

CREDIT ASSET

How a farmer rates as a manager has a greater bearing on his credit opportunities today than ever before.

In discussing farm loans, M.K. Mathews, Jr., Deputy Director of Land Bank Service for the Farm Credit Administration, said recently, "Increasing importance is being placed by lenders on the managerial skill and overall business savvy of the loan applicant. In this rapidly-changing agriculture, farm operators who demonstrate they can adjust quickly to the ebb and flow of economic conditions and opportunities are in a favorable position."

Cheaper by the gallon . . .

(Continued from page 31)

lower cost by side-dressing dry fertilizer, or neglect to say that greener leaves do not necessarily mean higher yields).

4. Pointing to "test" plots to "prove" that leaf feeding can substitute for regular soil fertilizer applications (but neglecting to mention that the fields chosen for this type of plot have been heavily fertilized for years and do not need more than a little fertilizer anyway).

An Expert

Dr. Sylon Wittwer of Michigan State University has been frequently quoted (or misquoted) on the subject of leaf feeding. Here is what Dr. Wittwer says about the commercial value of leaf feeding:

"Leaf-feeding of vegetable crops should be used as a means of providing essential nutrients (trace and major) when it is not easy to fertilize by conventional soil treatments; in other words, 'emergency' operations.

"The efficiency data for foliar absorption of phosphorus are based on percentage uptake. The limitation economically is that when most vegetables have the greatest need for phosphate, only a small percentage of the needs of the plant can be supplied through the leaves.

"We do not recommend the general application of nitrogen, phosphorus, and potash fertilizer as foliage sprays to the tomato, cucumber, melon, bean, pepper or sweet corn. Why?

(a) "Because most row crops receive their primary benefit from soil-applied fertilizer early in the season when they are small in size and have limited root systems.

(b) "Because foliar feeding with so-called 'complete' fertilizer, even under the best of conditions and with repeated applications, can supply only a small percentage (10 to 30 percent) of the total needs of the crops for most nutrients.

(c) "Because the cost of complete liquid formulations is usually excessive."



Bob and Bruce are proud of the latest herd record — 12,300 Milk, 438 Fat.

WHY WIRTHMORE IS PART OF THE FAMILY AT LEDGE VIEW FARM



Mrs. Philbrook handles the books and keeps tabs on performance and profits.



The herd has grown from 35 to 60 Holsteins in 10 years. Bob has never purchased a cow.

The Philbrooks, Bob, Eva and son Bruce of Greene, Maine are in farming to make money — just like you. That's why they rely on Wirthmore feeds and service. They've tried other feeds but always came back to Wirthmore because they found that nothing else gives such consistent results — or makes as profitable a herd.

Wirthmore belongs in your farm family, too, because it's worth more.

WIRTHMORE

IRON DEFICIENCY ANEMIA

by Dr. G. D. Cloyd*

THE TREATMENT of anemia with iron was practiced in antiquity and probably had a symbolic origin. Patients drank water in which swords had been allowed to rust with the idea the strength of steel would pass into the patient. As early as 25 A.D. drinking water in which glowing iron had been drenched was used for the treatment of anemia-caused conditions.

* Assistant Director of Research, Hess and Clark Co., Ashland, Ohio

The occurrence of iron-deficiency anemia of suckling pigs reared under modern conditions is well established. The severity of anemia in suckling pigs, and the rapidity with which it develops in comparison to other farm animals, can be explained by several unusual aspects of iron metabolism in swine:

1. The iron content of sow's milk is only slightly greater than that of a cow's or ewe's milk, although the early rate of growth of the pig is much greater than

the calf or lamb. Pigs reach 4 to 5 times their birth weight at the end of 3 weeks, and 8 times their birth weight at the end of 8 weeks.

A growth rate like this requires the retention of 7 mg. of iron per pig per day. The diet of the pig up to 3 weeks of age consists largely or entirely of sow's milk. The milk normally consumed per day supplies about 1 mg. of iron per pig per day, and the utilization of iron in this milk diet is only approximately 30 percent.

2. The pig is born with unusually low concentrations of total body iron and of low iron stores in the liver. The amount of iron in the pig's liver is, therefore, even more inadequate for the requirements of the body during the suckling

period than is the liver iron for the same purpose in other animal species.

3. In marked difference to other mammals, the pig is not born with an abundance of hemoglobin in its blood. In fact, the hemoglobin concentration of the blood of the healthy pig is very similar at birth, at weaning, and at maturity.

Rapid rate of growth, low iron content of milk, unusually low iron stores in the body at birth, and the relatively low levels of hemoglobin in the blood of the pig at birth . . . all help explain the iron deficiency anemia in the pig compared to the much lower incidence of iron deficiency anemia in the lamb, calf and foal.

Several Methods

Here are several methods of prevention and treatment of iron deficiency anemia in suckling pigs:

1. Iron salts have been administered orally in early life with satisfactory results. This method is time-consuming, requires the repeated administration of iron, and response to treatment is slow, often requiring several days. Close confinement and restraint of pigs is required for administration of these iron salts.

Very recently, highly palatable special preparations have been developed whereby iron and other minerals can be fed orally to baby pigs. Developed first in Denmark, but now available in the United States, these preparations are considered a major research breakthrough.

2. Iron salts have been combined with syrups and used in swabbing the sow's udder during the early part of the suckling period. This method of prevention or treatment is time-consuming, requires repeated application, is unsanitary, and may constitute a hazard in the spread of infectious diseases.

Control of dosage is impractical; weak or anemic pigs may obtain insufficient amounts of iron, and a response to this form of treatment is slow.

3. Iron injectable compounds have been administered to pigs during the first few days of life. This procedure is best performed by the professional rather than the lay operator. It's expensive, time-consuming, requires close confinement and restraint for administration, and requires special equipment. The ham staining as a result of the injection and the chance of infection also are hazards of this procedure.

4. Soil provided in a box or trough inside the pen has been used. Soil must be periodically replaced, dosage control is not practical, and iron content of the soil is usually unknown. The method may constitute a hazard in the spread of internal parasites and infectious diseases. Such a method of prevention or treatment is not acceptable to present practice of swine husbandry.

All these methods have been successful in the past in varying degrees. For the future, oral administration of special formula preparations offers great promise. *American Agriculturist, April, 1965*

HERE'S WHY GUTHION IS YOUR BEST CONTROL FOR ALFALFA WEEVIL

Only one spray per cutting needed...

- better control...
- longer residual control...
- more economical control

Now in its third full year of approved commercial use, Guthion controls alfalfa weevil with just one spray per cutting.

Guthion controls alfalfa weevil and other forage insects including aphids, leafhoppers, alfalfa plant bugs, fleahoppers, lygus and spittlebugs. A single spraying per cutting, properly applied, gives excellent protection. You can even spray stubble and get good results for the entire growth of the cutting.

Here's How It Works...

When fields become infested and damage is evident, spray with Guthion, but not later than 21 days before cutting. If damage is only spotty, wait and spray the stubble immediately after first cutting. Guthion goes to work fast, controlling both larvae and adults.

Lowest Cost...

Because a single application of Guthion lasts so long, you spray only once per cutting. The

result . . . Guthion gives you lower cost control than other materials.

More Total Digestible Nutrients...

Because your crop is protected during actual growth, you'll have a leafy, healthy green stand. And alfalfa treated with Guthion, used as recommended, can be fed green or dry to beef or dairy cattle without residue problems in meat or milk.

Successful Use of Guthion...

In full scale commercial use during the 1963 and 1964 growing seasons, following several years of successful testing, Guthion has proven to be highly effective against alfalfa weevil. You can use Guthion with confidence during 1965, its third year of full scale use.

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MEET A 4-H WINNER



WHAT DOES it take to be a national winner at the 4-H Club Congress held at Chicago each year? The Northeast had 32 national winners in 1964 . . . any one of whom could well be selected as "a case history of success." But the information on the path to the top was readily available on Timothy Dennis of Steuben County, New York, so we chose him for "a look behind the headlines."

Timothy, whose address is Route 1, Jasper, New York, was one of six national 4-H beef award winners given \$500 college scholarships by the Du Pont Company at the 43rd National 4-H Club Congress in Chicago. He is the son of New York farm news reporters Robert and Ruth Dennis, who also operate a 485-acre farm. A graduate of Jasper Central High School, Timothy is a sophomore at Cornell University's College of Agriculture and planning a career in veterinary medicine.

Started In '58

Timothy started in 4-H club work in February, 1958, with a registered Holstein calf. He had not been in 4-H long before his interest switched from dairy to beef. "My first project, a beef heifer, was from our own herd, and I took over her management after weaning her. When I was pressed by my family to name her, I called her 'Nameless'."

"Nameless" was the start of Timothy's herd that today numbers 10 cows and is valued at \$2,500. He has increased the size of his herd by raising the best heifer calves and buying registered replacements with money from sales of six feeder calves which brought \$800.

With the exception of 1964, Timothy has exhibited his beef cattle at the Steuben County Fair every year since he started in 4-H. During this time his animals have won four championships and ten first places. In 1963, his registered senior yearling was not only champion at the county fair, but was also champion 4-H female at the New York State Exposition.

This showing experience has helped "sharpen" his ability in showmanship and fitting. He was champion beef showman at the Steuben County Fair three times, and was champion beef showman at the New York State Exposition in 1963.

"In order to improve the quality of my cattle," he wrote, "it was necessary to recognize the most efficient type to meet today's competitive market." With this interest, Timothy soon became active in livestock judging. He was a member of the county livestock judging team for three years, and, in 1962, he became a member of the State livestock judging team. When the State team competed in the national contest at the International Livestock Exposition in Chicago,

Timothy was the second high individual on the team. The same team placed second at the Eastern Regional Contest held in Harrisburg, Pennsylvania, and Timothy placed third in sheep judging and seventh over-all. Timothy also coached the county 4-H livestock judging team for two years, and his efforts helped the county team win the New York State Championship in September, 1964.

Young Dennis was a junior leader in his club in 1960 and 1961, and in the next three years

was a leader, co-leader, and advisory leader, respectively. He also held the offices of reporter, treasurer, secretary, and president of his local club.

To gain an even greater insight into beef production work, Timothy worked in the retail meat store at Cornell, and also assisted with beef research. Next summer he hopes to work on a large beef breeding farm.

Besides beef, Timothy has also completed projects in dairy, forestry, fire control, tractor, and sheep. From his initial dairy calf project which started in 1958, Timothy has raised eight mature producing dairy cows. He sold nearly all of his dairy animals to help finance his college education.

Timothy Dennis was named "1964 Outstanding 4-H Beef Club Member" at the New York Beef Cattlemen's Association meeting in Syracuse. The citation noted his outstanding accomplishments in the care, feeding and management of beef cattle, as well as for all-round achievement in 4-H Club work.

In summarizing his 4-H experience, Timothy wrote: "4-H has become a part of me. The Club program has been something I shall always value and remember. Through 4-H, I have learned what I like and what I want . . . more important, I have learned what true service is and the value of learning by doing."

How much money will your tractor plugs waste this spring?

\$5⁰⁰ . . . \$10⁰⁰ . . . \$15⁰⁰ . . . \$20⁰⁰?

If your tractor plugs have been used more than six months, the chances are they'll cost you many dollars in wasted fuel this spring—fuel expense you can prevent by installing new Champion spark plugs now. Here's why . . .

Dynamometer tests on hundreds of tractors have uncovered a startling fact: Tractor plugs used more than 250 hours—or more than six months—misfire enough to waste an average 8% of tractor fuel—and do it so silently their owners don't even know it! Losses like that mount up. When you lose an average eight cents of every gas dollar, you're losing eight dollars every time you buy a hundred dollars' worth of gas. And if you're like most farmers, your spring dollar losses stand to be considerably more!

In addition to costing you money, these same tests showed that 250-hour-old plugs can also sap an average 7% of a tractor's horsepower—enough power loss to prolong plowing by over seven hours on a 240-acre farm. When you install new Champions, you not only save money, you also benefit with more powerful performance and big savings in time.

At right is a box in which you can figure what *you* will save this spring by replacing last fall's plugs with new Champions now. Better yet

. . . forget about fuel, power and time losses now by installing the farm plugs designed to give *all* your farm equipment top field performance—new silvery-plated Champions!



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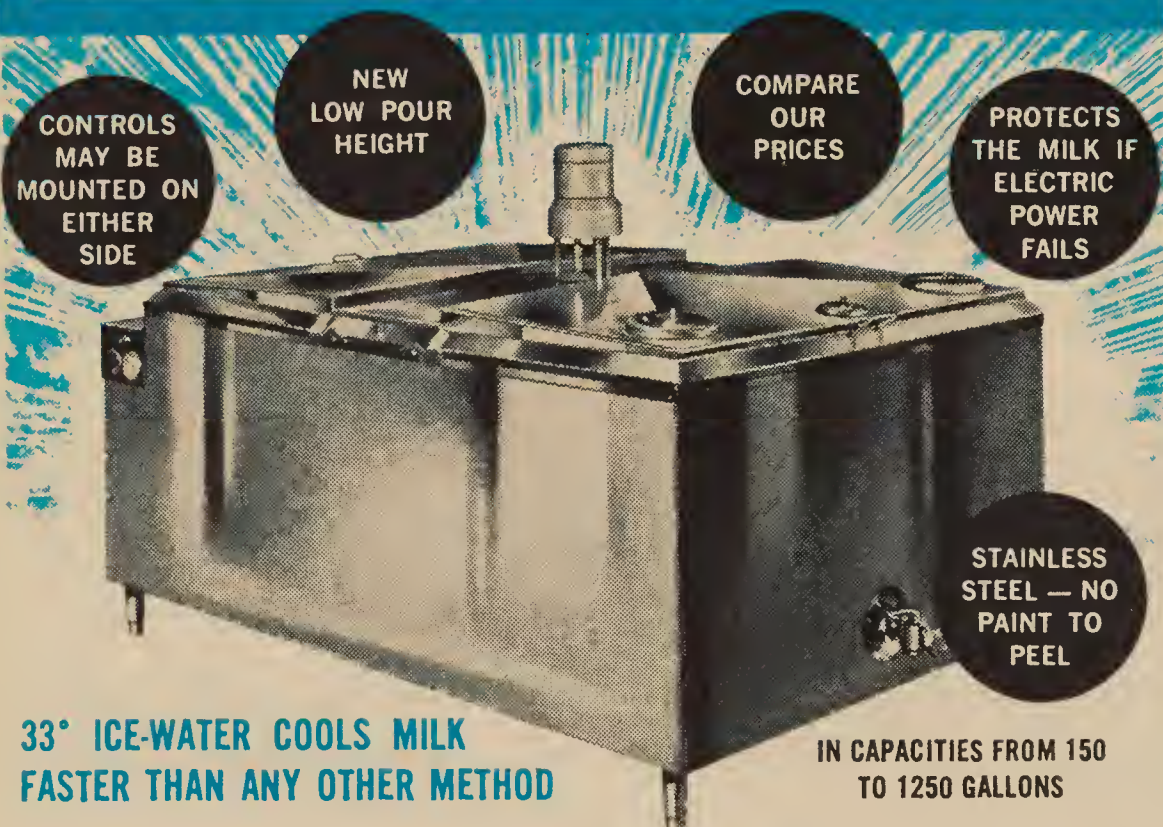
Total number of gallons you used last spring	_____
Multiply by per-gallon cost you pay X	_____
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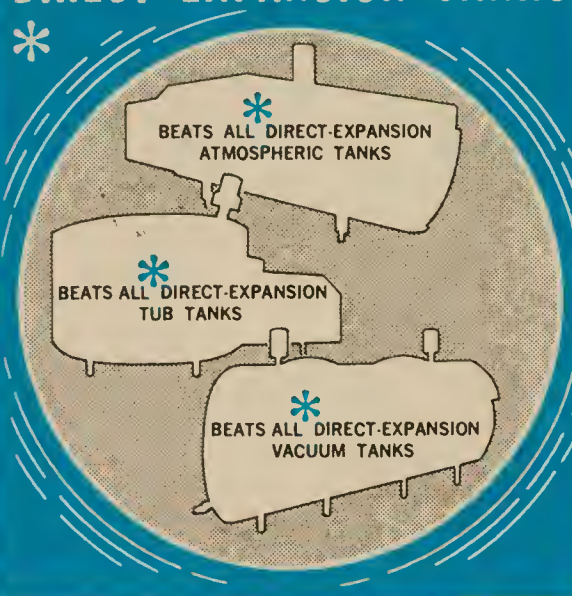
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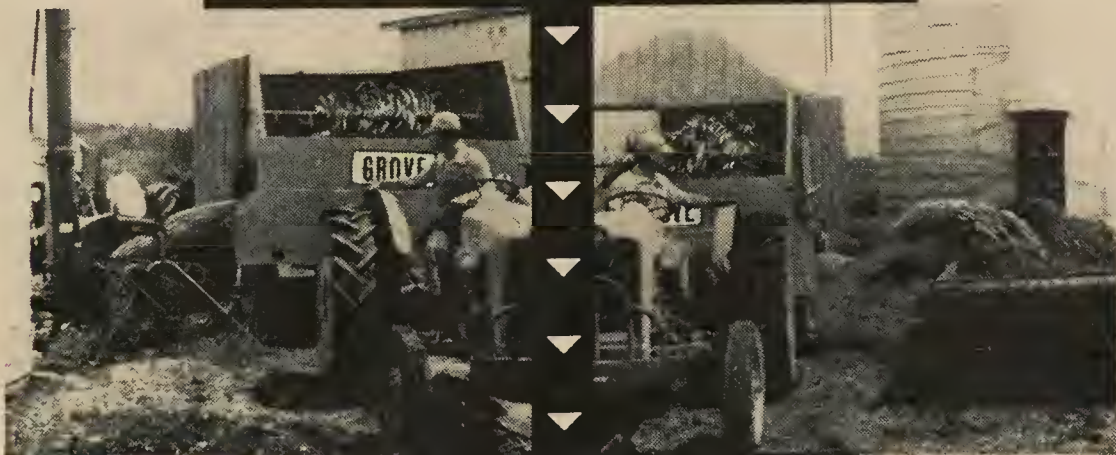


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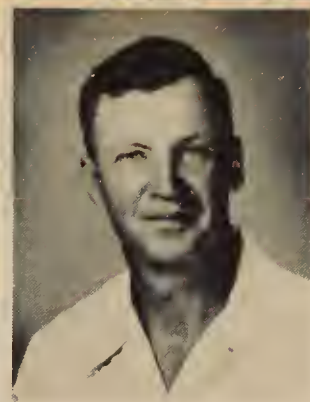
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Gayway Farm Notes

by HAROLD HAWLEY

SAWDUST

Editor's Note: For those who may not have read about Harold's new barn, it is a free stall arrangement in which all the floors, except under the free stall beds, are made up of steel slats over pits in which manure is stored in a liquid state. His only roughage is silage, fed in bunks between rows of free stalls; and a movable overhead conveyor brings silage to these bunks.

When we moved into our new barn we had two rows of free stalls with rubber mats and two were fixed with curbs so we would use bedding. We were selling straw at the time and decided to chop up the straw from the broken bales. We bedded with this for several weeks. After a while it became apparent that we were getting a buildup of straw and manure in the pits behind the cows bedded with the chopped straw.

We decided to switch to sawdust. This worked much better, and any that got worked back and fell through the slats just disappeared. So far, so good!

But whenever we tried to find more sawdust it was always the same... either the stuff was promised, or wet, or just sold. Finally, about February 25 we just gave up, started yanking out the curbs, cleaned out the bedding, and put in mats.

We were already convinced that mats were the best long-run answer, but hadn't planned to go to all mats so soon. Aside from whatever silage might be on the mats, we use no bedding or anything on them. This is the part that appeals to us. The job of finding and buy-

ing bedding plus putting it in the stalls is eliminated.

Observing other people's cows in their free stall housing leads to one very definite conclusion. Where cows leave the stalls to feed at a bunk or hay rack elsewhere, the movement in and out of the stalls and the consequent loss of bedding is much, much less. With our set-up, the reaching for feed, plus the very fact that the cows are in the stalls a much greater percentage of the time, just naturally complicates the problem of keeping them bedded. We were adding sawdust twice a week... whereas many have told us they added it two or three times all winter.

All this by way of saying that perhaps mangers between rows of free stalls call for a different bedding arrangement than in free stalls separate from the feed bunk. At least, we feel mats are a much more satisfactory answer than sawdust, etc, in a manger free-stall combination.

YOUTHPOWER

It's frequently said that the most wonderful crop we raise is our youth. Nothing gives me a greater lift than to observe what some of these enthusiastic, trained people can do — and nothing is further from the truth than to hear someone say that a young man, or a young couple, just can't get started farming any more.

We all know differently. In spite of the large capital requirements, in spite of the huge amount of know-how necessary, the good young folks find ways of getting a toe-hold. The financial arrangements are varied, ingenious, and

(Continued on page 43)



Left to right are: Jacqueline Campbell, Canton; Jean Morin, Dexter; Mrs. Harold Hawley, Weedsport... all from New York. Mrs. Hawley, chairman of the State steering committee, accompanied these two State delegates to represent New York at the National Youthpower Congress in Chicago, March 24-27.

American Agriculturist, April, 1965

sometimes precarious, but anyone is foolish to bet against a good man-wife team who want something bad enough to work and sacrifice for it. Before we conclude that some of these arrangements are foolhardy some of us should look back to some of our own situations when we first started. Many of us were operating on that proverbial shoestring not so very long ago.

There has always been talk about the misunderstanding between producers and industry, but now along comes a new kind of committee co-operating to work with young people. The effort being made is to help young people to become aware of the opportunities in the fields of nutrition and food. It is a combined effort of many industries and educational agencies, as well as producer and farmer groups, known as the Youthpower Conference. It's easy to generate enthusiasm for a united effort for such a promising cause. After all, bringing career opportunities to the attention of our young people is the kind of effort that begets its own reward.

HIGH-MOISTURE CORN

A carload of farmers and one of our county agents recently "went west" — that is, to Genesee County to learn what we could about harvesting, storing, and feeding high-moisture corn both in conventional silos and in sealed storage.

For a starter . . . high-moisture corn turns out to be shelled whole corn, shelled, cracked, or ground corn, ground ear corn with all the cob included or with part of the cob eliminated. Without being technical, these good farmers who are storing part of their grain corn in silos said you could harvest corn for this type of storage a little too wet to crib.

As for harvesting and handling the corn, these men are using several methods depending on what equipment they had or preferred. Some run the corn into a combine with a corn head and shell it, eliminating part or all or none of the cob. Most agree that saving some of the cob is good but it uses up some storage space. Some corn is picked with a regular picker, hauled to the silo as ear corn, run through a hammermill, cracker, roller, or grinder, hence into the blower and up or into a forage harvester fitted up with a recutter screen, which finishes the shelling and cracking process and does a pretty good job of grinding. The blower pipe can be hooked to the forage harvester, and the machine which does the grinding can also do the blowing.

Some of the corn was leveled as it was blown in and some just blown in. Of course, if cob is left with the grain there will be more separating out if the feed is allowed to mound up as the silo is filled.

All agreed that a good tight polyethylene cap over the grain

is essential until feeding starts. With whole kernel corn with a little cob the job of shovelling the feed out of the silo is not too bad — if the silo diameter is not too great! With ground corn there is a tighter packing, and this looks like a good place for a silo unloader or a pretty strong back.

Whole corn was run through cracker or grinder before feeding, whereas that which was ground or cracked before ensiling was ready to feed. The thing that impressed me was that despite the differences in how the corn was stored and in what it was stored, all that we saw was coming out as fine feed.

We were further interested in the variety of ways of feeding this

material. At two places it was metered into the silage; one man elevated his corn from the cracker to his chuck wagon right on top of a load of silage so it mixed in as he fed the load off; another hauled it to a stanchion barn and fed it in the manger.

While all the men were pleased with the quality of this feed, all seemed more impressed by the reduction in their feed bills. It's our guess that high-moisture corn mixed into the silage will go along way to eliminate the problem of how to get enough grain down the cows in the parlor. You simply meet a lot of their nutrient needs before they get to the parlor.

While in the stanchion barn, we

always had our own grain ground into cow feed with proteins, minerals, and molasses added. It looks as though we could continue to use home-grown corn if we can store it in a silo and get it mixed with the silage as we feed. The idea of starting cornpicking earlier before harvest losses get high certainly sounds good, as does the elimination of cribbing corn and then shoveling it out. The one fly in the ointment was the statement repeated on several farms, that one would need to feed off nearly 3 inches of corn a day to avoid spoilage in hot weather. This would take a pretty tall silo if one was to have year-round feeding . . . or two silos.

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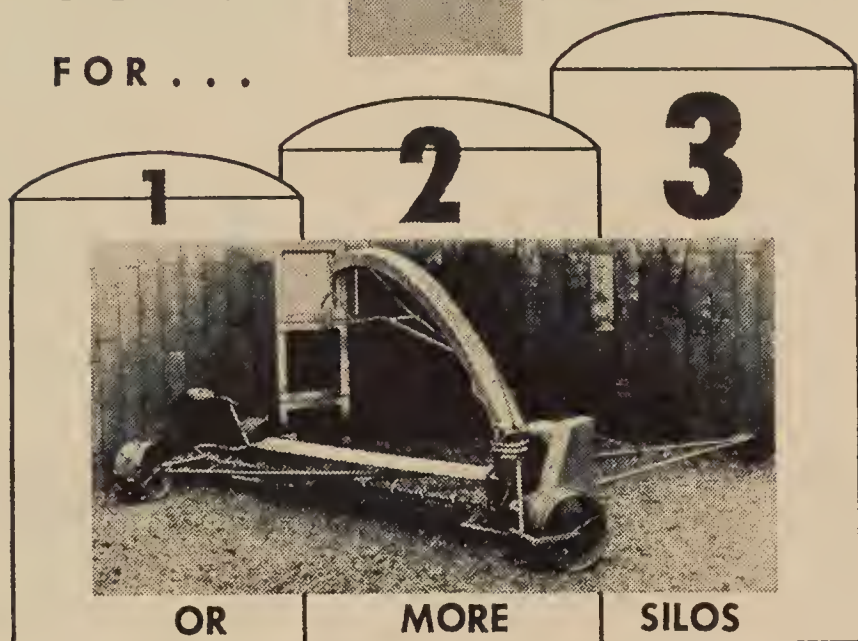
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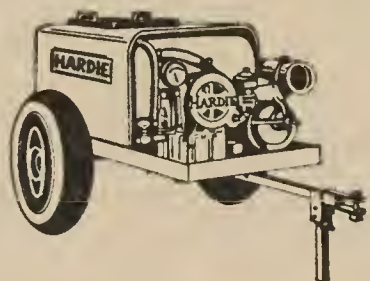
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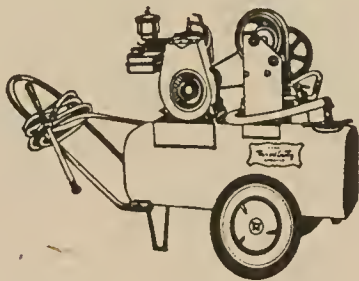
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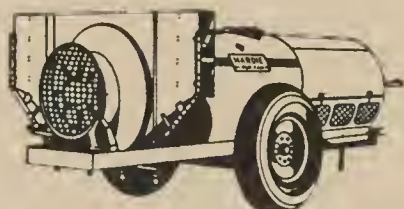


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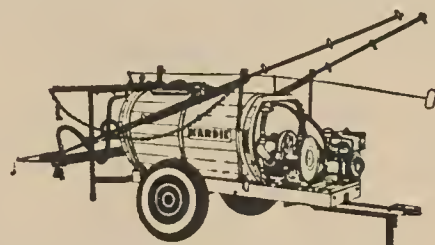
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Then next fall, (September 2-23), another tour group will spend three weeks in the British Isles. This trip should appeal especially to those who have been to Europe one or more times and would now like to see more of Ireland, Scotland, Wales and England. The British Isles are at their very best in the autumn, and already our party for this tour is almost complete.

Or, if you hurry, there is still time to join our air tour to Spain and Portugal, which leaves New York on April 26 and returns May 17. Our Iberian Holiday will be spent visiting the most interesting and famous places in these two unspoiled and enchanting countries. Madrid, Toledo, Barcelona, Palma, Granada, Gibraltar, Seville, Lisbon, and Estoril are included.

Since April 26 is so very close, we would suggest that you phone our tour agents, the Travel Service Bureau of Needham, Mass. (444-2003) to make reservations for this tour.

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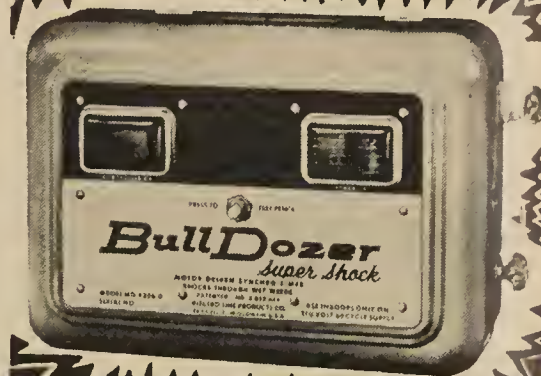
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American Agriculturist, April, 1965

THE BIG ONES

by R. W. Spalding Cornell University

A RECENT survey of all large dairy herds in New York State indicates that the herds with 75 cows or more (milking and dry) constitute only about 2 1/2 percent of the total herds in the State but contain 8 percent of the cows and produce about 10 percent of the total milk.

The numbers and distribution:

County	75 to 100 cows	100 or more cows
Albany	3	4
Allegany	2	2
Broome	5	5
Cattaraugus	7	5
Cayuga	7	8
Chautauqua	9	4
Chemung	2	2
Chenango	15	5
Clinton	11	5
Columbia	30	13
Cortland	12	12
Delaware*	11	9
Dutchess	36	32
Erie	5	6
Essex*	0	0
Franklin	7	7
Fulton	9	2
Genesee	18	11
Greene	4	1
Herkimer	12	9
Jefferson	19	11
Lewis	4	4
Livingston	17	5
Madison	33	13
Monroe	11	5
Montgomery	6	10
Niagara	3	2
Oneida	25	17
Onondaga	6	8
Ontario	14	5
Orange	22	12
Orleans	2	1
Oswego	5	2
Otsego	5	8
Putnam	1	3
Rensselaer	6	2
St. Lawrence	7	2
Saratoga	0	2
Schenectady	0	3
Schoharie	11	4
Schuyler	2	0
Seneca	1	0
Steuben	3	8
Sullivan	4	4
Tioga	8	1
Tompkins	14	5
Ulster	3	3
Washington	27	16
Wayne	1	4
Wyoming	23	6
Yates	3	0
Long Island	0	3
Total	491	311

* No confirming report received from County Agricultural Agent

There were a total of 802 herds with 75 or more cows of which 311 herds had 100 or more. The Dairy Herd Improvement Co-operative records show 310 of these 802 herds enrolled, or almost 40 percent are keeping production records. This is two and one-half times as large a proportion as all herds in the State.

A breakdown of these large herds by number of cows shows one with over 800 cows, three with 400-500, two with 300-400, 17 with 200-300, 288 with 100-200 and 491 with 75-100 cows.

A card survey of 170 of the 100-cow farms was made relative to a few specific practices being

followed. This was not a random list, and 100 percent report was not received, but since it represents 55 percent of the total herds of this size it is thought to be descriptive of these large herds.

Some Results

Several striking things are evident from the figures obtained in this survey. The majority of these herds are still using conventional barns and only 32 percent have constructed parlors to make the milking job easier. More than one-half of these large herds are divided in two or more barns...

which does not contribute to operational efficiency from the standpoint of use of equipment or labor.

Twenty-three percent of the herds keep no production records, 22 percent breed no cows with AI organizations and 76 percent breed all heifers to their own sires. This latter fact emphasizes the problem dairymen have of observing estrus and corralling heifers to be bred. To solve this problem many are turning a young sire in the pasture and sacrificing 25 percent of the total potential from which to make genetic improvement. Perhaps heat synchronization will help prevent this waste when it becomes a common practice.

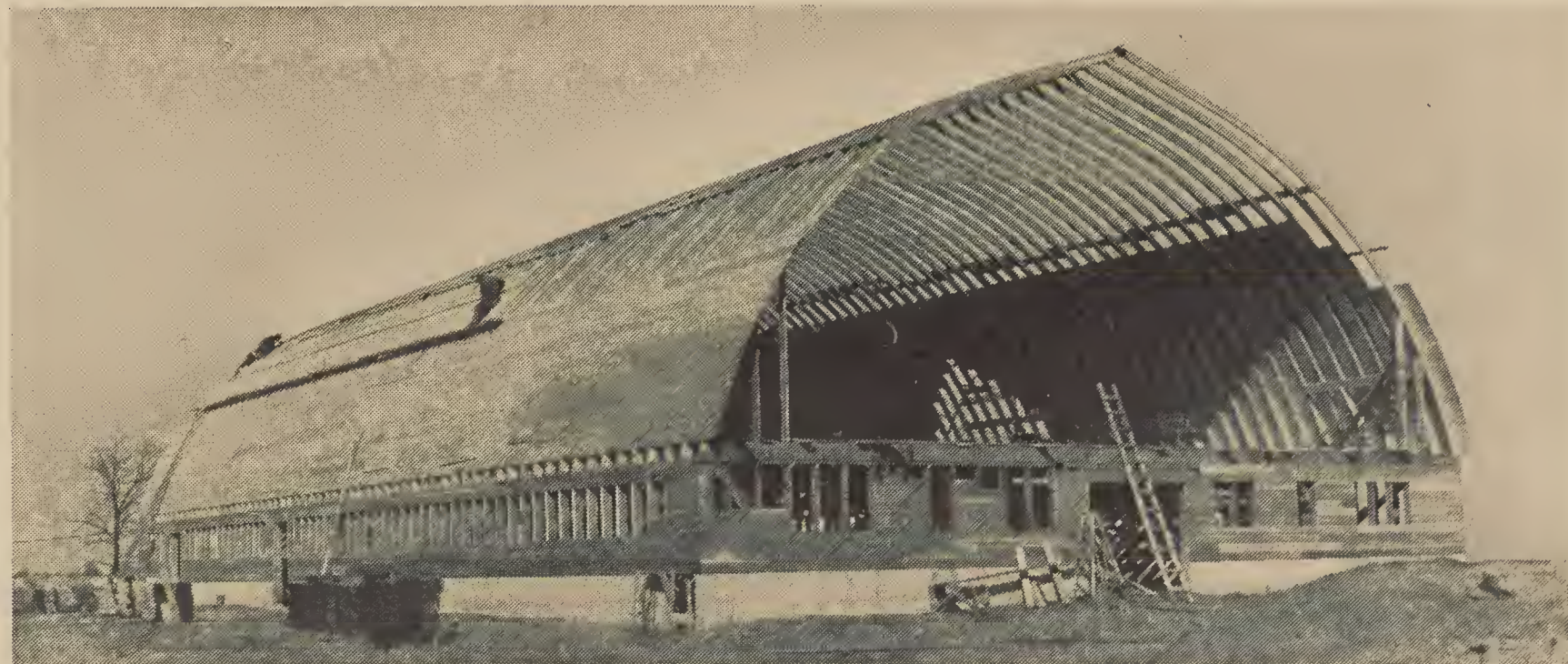
A trend everyone has noticed is the fact that herds of this size continue to depend less on pasture for the summer feeding of the milking herd, but are either feeding out of storage or bringing greenchop to the cows. Fifty-two percent of these herds pasture the milking herd four weeks or less.

Keep Records

It is encouraging, however, to see such a large proportion keeping production records. Seventy-eight percent of the herds use artificial insemination service, and these herds, on the average, bred 100 cows each; however, only 54 percent of the total milking and dry cows in all 802 herds were artificially inseminated through the AI organizations.



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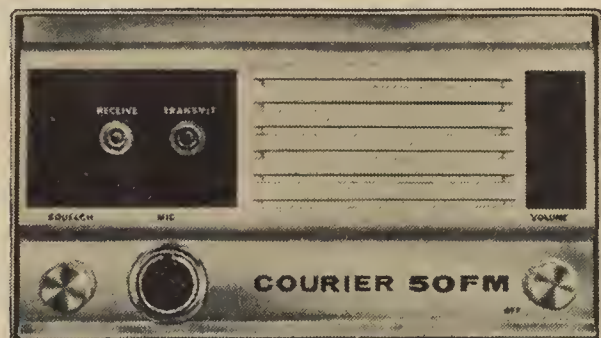
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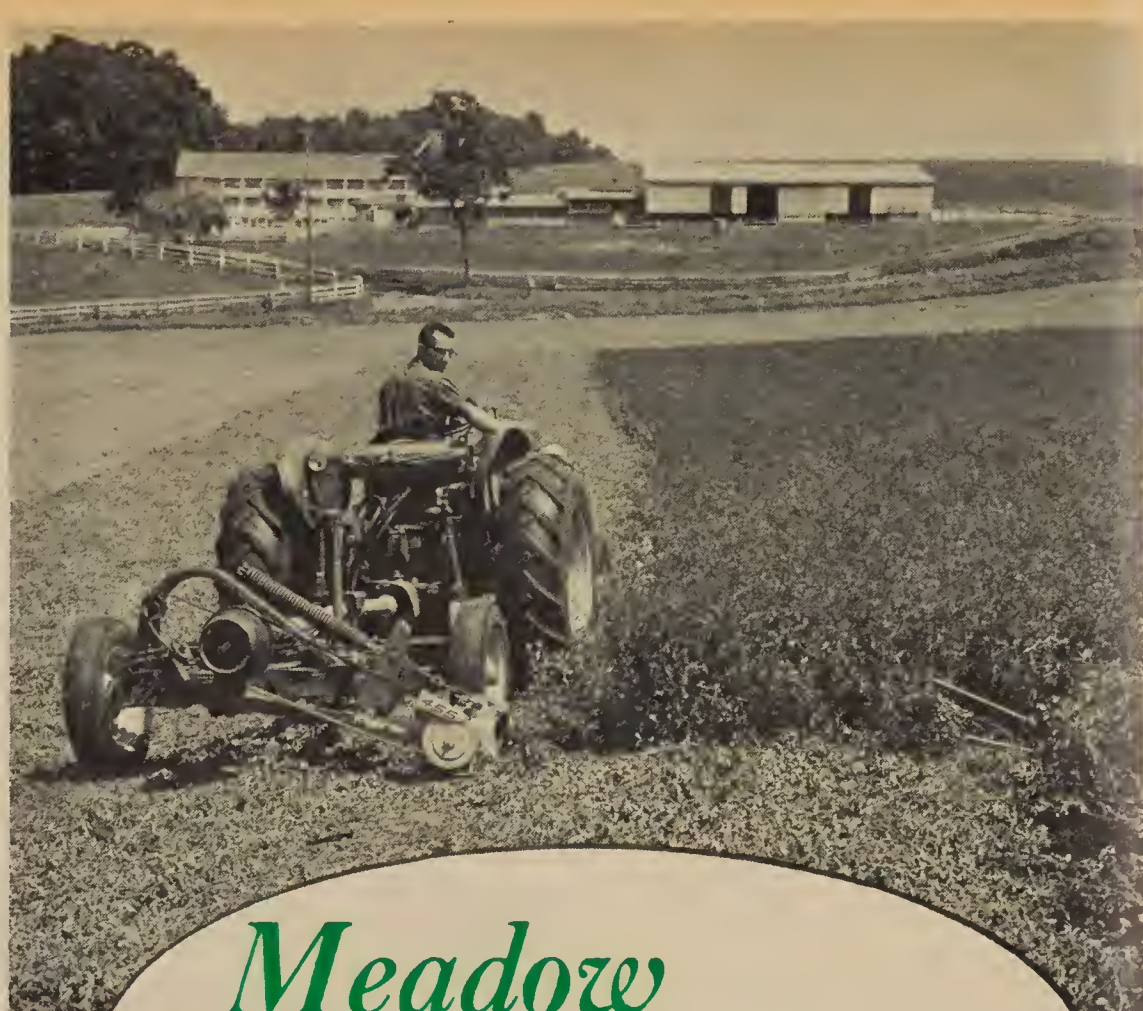
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Meadow Management

by John Baylor*

"MANAGEMENT" of perennial legumes and grasses is a pretty big topic for discussion. It includes the species and varieties you select; the mixtures you use; the fertilizers and pesticides you apply; and the time, height, and number of times you harvest the crop. In short, management begins when you plan your program and continues right through to the use of the crop. Neglect any part of your forage program and you're shorting yourself on top forage profits. For now, though, let's just take a look at when to harvest and why.

Stage of Cutting

Harvesting time is of utmost importance. If there's one thing that researchers and top dairymen agree on, it's this: for first cutting hay crops, whether legume or grass, their feed value is triggered more by when you cut them than by anything else!

To get top yields of high-quality alfalfa, for example, here is the cutting schedule we like to follow. Make the first harvest, whether as silage, hay, or pasture, when the majority of the plants reach the full bud to very early bloom stage. This means late May or very early June for most areas of the Northeast.

Some bloom should be showing before second and later cuttings are made. This generally means a delay of 40 to 45 days between cuttings so that root reserves can be replenished.

For Pasture

Where pastured, an intensive system of rotational grazing in which top growth is removed in the shortest possible time is essential to maintain productive stands. As when cut for hay, a delay of 40

to 45 days between grazings is necessary.

In late summer and fall management, it is important to harvest early enough in your area to give the plants sufficient time to build up reserves before frost. Either this, or delay harvest until near or after a killing frost, so there is little or no regrowth after cutting to use up root reserves.

A late fall cutting on some soils is dangerous. This practice removes stubble which helps to catch and hold snow that protects the plants during winter. Its use should, therefore, be limited to only the best-drained, best-fertilized fields on your farm.

Food Reserves

I've already suggested the importance of adequate root reserves to keep alfalfa healthy. To understand fully the importance of proper cutting management, let's see how this forage plant manufactures and stores food.

Alfalfa is a perennial. It stores energy in its roots and crowns in the form of readily-available carbohydrates — energy that is used by the plant throughout the year for growth and reproduction.

What happens to these food reserves? When growth starts in the spring, carbohydrates stored in the roots and crowns are used to start new top growth from small underground stems called rhizomes. Depletion of that stored food continues until the plants are six to eight inches tall. By this time food is being manufactured in the leaves as rapidly as it is being used, and some food storage begins. Storage of food continues and reaches its highest level in the roots and crowns usually about full bloom.

After the first crop is removed, the process of food reserve depletion

* Extension Agronomist, Pennsylvania State University

(Continued on next page)

American Agriculturist, April, 1965

tion and renewal must be repeated for the new growth. It's true that root reserves are not at their highest level at the bud stage when cutting is recommended. However, the plants can still maintain a satisfactory level of reserves if harvest of later cuttings is delayed until early bloom and careful management is practiced in late August and September.

Fall Management Important

Research shows that late summer and fall management is actually more critical than spring management as related to both yield and stand persistence. Here's why:

Alfalfa needs its leaf growth during the fall period prior to frost to manufacture food which is stored in the roots and crowns. Plants use the stored food reserves to develop cold resistance, to live over the winter and to begin growth in the spring. In fact, Wisconsin studies show that as much as 50 percent of the available carbohydrates stored in the roots and crowns are used up during the winter months.

Food Reserves

Thus, for strong, vigorous plants, it's important that food reserves of plants going into winter are high. But there's more to it than just food reserves. New spring growth of alfalfa comes from those rhizomes I mentioned, laid down in the crown area the previous summer or fall. Thus, an abundance of rhizomes in the fall is essential for a big first cutting the following year! A late summer and fall management program, geared to plenty of stored food in the root and crown generally results in a plant with an abundance of healthy rhizomes.

Much less is known about the management of birdsfoot trefoil, another valuable legume for northeastern farmers. However, limited research suggests the management for hay-type trefoils should be similar to that for alfalfa.

Manage Grasses, Too!

We've put a lot of emphasis on forage legumes and their management. But forage grasses also play a big role in a successful forage program. When properly limed, fertilized and harvested, grasses have the potential to yield as much high quality forage as legumes.

Perennial grasses should be managed in the early spring following the same principles a farmer employs when he grazes his wheat. He is careful to avoid destroying the young seed heads

(growing points) in early spring, at which time the central stem is starting to develop.

With grasses harvested for forage we are not interested in saving the seed head. But we *do* want to save the growing region just beneath the seed head. This is a critical zone on the grass stem at this stage. It includes all of the leaf bases. Destroying this region by low grazing or clipping is serious because the leaves have not nourished the roots sufficiently to produce a new crop of shoots.

Graze Early

Thus, all of our grasses can be grazed safely early in the spring — when 4-6 inches tall — *before* they begin to "joint;" that is, before the

growing point which later becomes the head grows up inside the stem.

For silage and hay the *best* time to make the first cutting of grasses is when the heads are just emerging from the boot. At this stage grasses are still high in feed value — lots of leaves, not many stems.

By the time the heads are just emerging, food reserves have been stored for regrowth. Cutting at this stage means earlier aftermath production coming ahead of hot, dry weather. And it may mean an additional harvest later on.

If the first harvest is removed by grazing at this "silage" or "hay" stage, clipping off the ungrazed herbage is essential to insure rapid recovery growth.

Time the second harvest carefully, especially for brome grass and timothy. If you want the forage for pasture, graze before aftermath stems joint, usually not later than five weeks following first harvest. If harvested for hay, cut seven weeks after first harvest or when new sprouts show on the stem bases. And leave three to four inches of stubble for more rapid recovery.

Grasses are normally less sensitive than legumes to fall cutting or grazing treatments. However, adequate fertilization and rest during the six-week period prior to winter freeze-up insures early vigorous growth the following spring.



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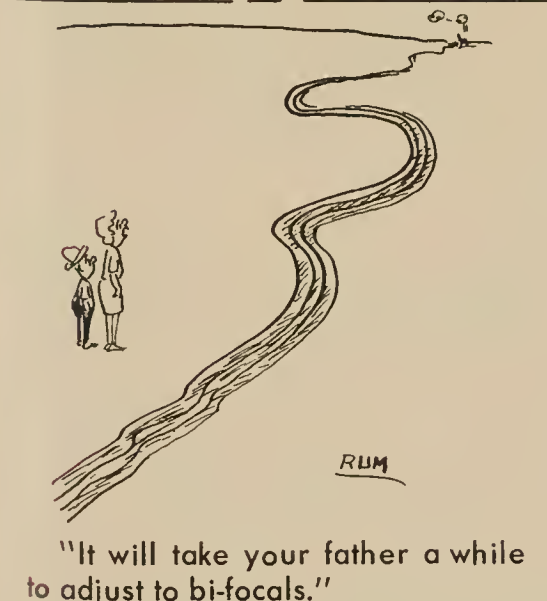
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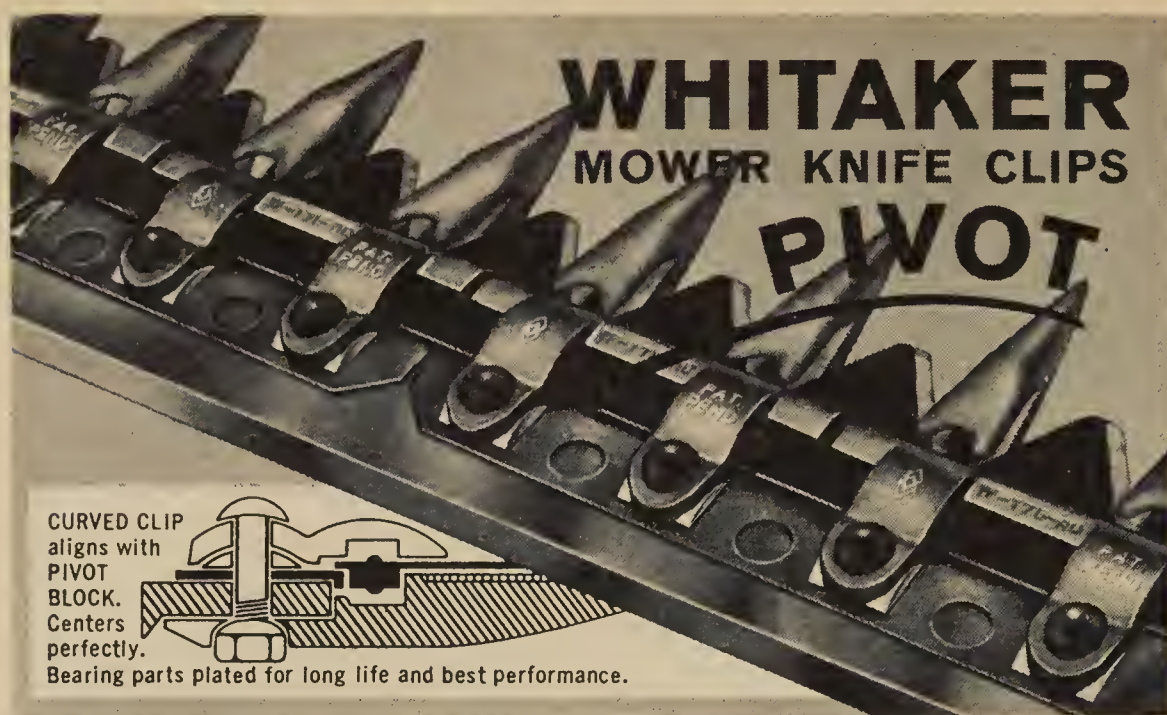


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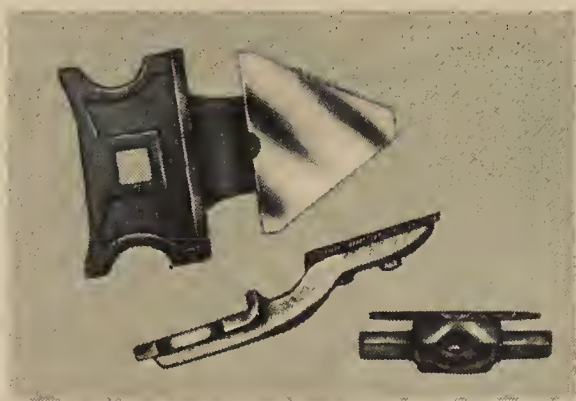


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CHRISTMAS TREE PLANTING



by W. H. Rawlings*

THE MOST CRITICAL part of your Christmas tree project begins the moment the trees arrive. It may mean the beginning of a successful plantation, or it might mean money wasted.

The difference is in the handling and planting of stock in the field. Dry weather the last few years has had an adverse effect on planting, but the man who follows good planting practices will generally save a portion of the trees planted even in dry years.

As soon as the trees arrive, unpack them and remove them from the bundles. Keep them in a cool place; better yet, heel them in. The trench used for this should be about as wide as a shovel and deep enough to thoroughly cover the roots. Be certain that the roots are kept moist at all times.

We generally try to heel our trees in near a shady portion of the field, or to throw some brush over the top of the trench. Don't cover them with canvas or burlap; this will make an extremely warm situation under the cover and cause the trees to dry out.

Critical Time

The critical time for any seedling is the period when it is taken from the heeling-in trench and placed (planted) underground. Why? The roots are exposed to air and sunlight. This has a tendency to dry them, thereby taking life from the seedling and, if serious, it will not grow.

Try to be certain that the bucket in which the seedlings are carried has about 3 to 4 inches of water in it; preferably good muddy water. This solution of mud and water seems to help the seedlings get a good start. If they are to be machine-planted, they should be dipped in water before going to the machine.

Roots should be spread and fully extended into the hole, whether planted by hand or with a machine. The saying that a ten cent tree requires a ten dollar hole is just as true with evergreens as with fruit trees or shrubs.

Check Planting

Some people who are hired to plant trees are doing it for the pay they get, not because they want to earn their money by doing a good job. The machine operator wants to finish your job so that he can go on to another one; after all, it is a short season in which to make money. So check carefully to see that the planters do their work right.

In a good job, they should be sure that the dirt is firmly packed around the plant; any opening allows air to enter and dry the root system of the seedling. Result... a planting wasted. A good

* R.D. #4, Rome, N.Y.

"stomp" with the heel will seal the hole well.

The machine planters in our area who are doing an outstanding job have one man following the machine. He straightens up all trees that are set crooked; he also checks spacing and sees to it that the dirt is firmly packed around the seedling. A little extra cost? Yes, but well worth it.

Sometimes the planting machine needs an adjustment or is not working just right. The man who is riding cannot see this, nor can the tractor operator, but the man following can stop them at once,

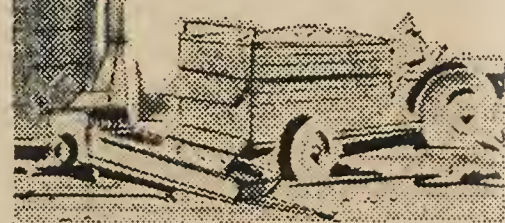
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If you wilt your crop, Kylage offers a double safeguard against spoilage and bad odors. If you prefer direct cutting the use of Kylage is a must to drive out trapped air and to aid beneficial natural fermentation.



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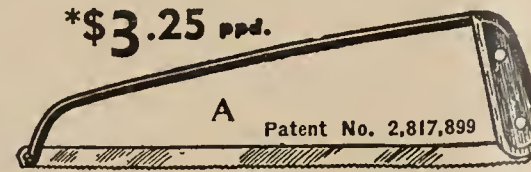
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WHEELER SAW CO., BELCHERTOWN, MASS.

American Agriculturist, April, 1965

adjust the machine, and pull out any seedlings incorrectly planted.

Machine or Hand

Should you use a machine or hand-plant? This will depend on your terrain . . . and you. A good rule of thumb is whether you can plow the ground, or whether it has ever been plowed. A tree planter can go wherever a plow can go . . . and in some spots that would be tough to plow with a tractor. Will it do a good job? Much of that depends on who is operating the machine, and how much pride he takes in what he is doing.

We assume most men try to please the person they are working for; therefore, they try to do the best job possible. Many of them will promise more than they can deliver. When trees come, everyone wants his planted yesterday, and the operator does not want to lose the job. In order to keep it, he promises you and your neighbor that he will plant your trees tomorrow. That might mean tomorrow, a week from tomorrow, or next month. And then there are some planters who have an exact schedule they follow; you can set your watch by it, barring tractor breakdown or labor trouble.

Plants Fast

The machine can plant 10,000 trees a day under ideal conditions.

Dates to Remember

April 3 - Curtiss Classic Holstein Sale, Curtiss Farms, Cary, Ill.

April 3-4 - Massachusetts State Convention, University of Massachusetts, Amherst.

April 4-6 - Annual Food Distribution Conference, University of Delaware, Newark.

April 8 - N.Y.S. Guernsey Breeders Co-op, Inc., Annual meeting, Beekman Arms, Rhinebeck, N.Y.

April 8-9 - New England Gardeners' Workshop, Old Sturbridge Village, Sturbridge, Mass.

April 9 - New Hampshire Cooperative Extension Service and New Hampshire Poultry Growers Assoc. annual meeting, University of New Hampshire, Durham.

April 10-11 - Weekend Flower Show, Kingston, Rhode Island.

April 10 - New York Angus Breeders Assoc. annual sale, College of Agriculture, Cornell University, Ithaca, N.Y.

April 11 - New York Flying Farmers dinner meeting, Beck's Grove, Rome, N.Y.

April 24-30 - National 4-H Congress, Washington, D.C.

April 22-24 - National Ayrshire meeting and sale, Wilmington and University of Delaware.

April 24 - New York Forest Owners Association, Inc. College of Forestry, Syracuse, N.Y.

April 26-28 - Annual meeting Mid-Atlantic States. *American Agriculturist, April, 1965*

A man hand-planting can only put in 1,000 per day . . . at least this is the claim. Sometimes you find trees stuck down a woodchuck hole, they tell me, but this is seldom found when trees are machine-planted.

The cost is about the same; in Oneida County, in 1964 the SCS allowed \$15 per 1,000 for machine-planting, and \$17.50 per 1,000 for hand-planting; most planters charge \$20 per 1,000 to plant.

You might be able to induce the local Boy Scout troop to plant for you as a project, then give them a donation for their camping fund. The local ag teacher might know of an FFA chapter that needs

money and will do the planting in order to earn some.

You can design a set of planting lugs for your tractor; they will dig out a nice hole about six feet apart. Then invite your friends and relatives to pay you a visit on a particular day you want to plant trees. Many of them will have a mighty good time . . . and do a good job! We never did measure the speed of this method of tree planting, but it does a good job if the people who plant the seedlings will pack the soil around the roots tightly.

Cornell has a good plan for making these lugs (write Fred Winch, 114 Fernow Hall, Cornell University, Ithaca, New York). It takes a minimum of metal, and

the local welding shop can do the work for you. And . . . if you have your own tractor . . . you have a good method of making the holes, which is the hardest part of the planting operation.

A final tip on planting; your trees are planted firmly if you can pull on the needles and have them pull off before the stem pulls out of the ground. It is a good idea to spot check your planting crew by doing this once in a while.

If possible, water the seedlings as soon as they are planted. We always pray for rain right after the planting is finished; you will get a good take if it does rain, and a wet spring is a great help to those of us who plant trees.



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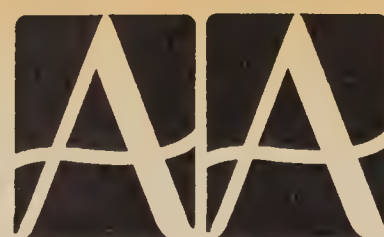
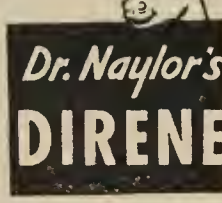
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FARM DOLLAR GUIDE

A HANDBOOK to help woodland owners fill out income tax forms has just been issued by the U.S. Department of Agriculture. Many forest owners pay more in income taxes on timber cut or sold than the law requires, Forest Service officials believe. The handbook, "The Timber Owner and His Federal Income Tax" is available for 35 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

THE ULTIMATE RESULT OF GOOD FARM MANAGEMENT is to lower the cost per unit of producing food and fiber. Fundamental to this is increased production per man, but vitally important also is cost control. Machinery costs account for one-fifth of the total expenses on New York State farms. This amounts to over \$100 per cow on many dairy farms.

Modern equipment is essential, but using it too few hours per year, or permitting rapid deterioration can skyrocket costs per unit produced. In the same way, credit that costs much above average, failure to buy in quantity, or buying low-quality seed, feed or fertilizer, can up costs and kill the possibility of profit.

DIESEL TRACTORS, whether large or small, need to be used at least 500 to 600 hours per year to justify extra cost of the diesel over a gasoline-powered machine. Michigan State researchers found that about 60 percent of all tractors with 45 h.p. or larger were operated less than 800 hours per year.

HERBICIDE RESEARCH on chemicals called "surfactants" used with chemical weed killers may reduce cost and possible build-up of chemicals in soil.

A TRACTOR ACCIDENT STUDY in Ohio showed that nearly half of all tractor accidents happened in the farmyard, farm lane, or on a public highway. Over half the fatal accidents involved an unloaded tractor, or a tractor pulling a wagon. Men over 60 had more accidents than average, but over half who fell or were thrown from tractors were under 16 years old. Older people, people under 20, and road gear travel are often involved in tractor accidents.

"COOPERATIVES WHICH ARE OWNED AND CONTROLLED BY FARMERS THEMSELVES offer the most effective mechanism for individual producers to combine their economic resources to attain greater strength in the market place." So says Kenneth D. Naden, executive vice president of the National Council of Farmer Cooperatives.

NITROGEN FERTILIZATION at very high levels can cause nitrate poisoning from alfalfa, research at University of Wisconsin shows. Red clover, ladino, and birdsfoot trefoil did not develop dangerously high nitrate levels even when fertilized at the rate of 400 pounds of nitrate per acre.

IF YOU ARE THINKING of spraying to control the alfalfa weevil, now is the time to make plans. In South Jersey and Pennsylvania last two weeks in April are about right; in most of New York the first two weeks in May.

A SAVING of \$3.02 per hundredweight gained in winter, and 98 cents per hundredweight gained in summer was credited to shelter in tests with beef cattle in Iowa feeding lots. The average daily feed intake per steer over the two-year trial period was essentially the same for the shelter and no-shelter groups; but the group with shelter required less feed per pound of gain, resulting in a saving in feed cost per hundred pounds.

MORE DAIRYMEN are culling first calf heifers with low production rather than "giving them another chance." Consider culling all first calf heifers that produce less than 70% of the rolling herd average.

USDA URGES 7% cut in 1965 fall and late summer potato acreage. Fact is that present good prices are due to bad weather, not low 1964 acreage! U. S. seed potato supply is down.

SOYBEANS LOOK GOOD as crop in northeastern states, where research has resulted in varieties with good yields. Carry-over of last year's crop is small; average farm price late in '64 was highest in 11 years.

MOST TROUBLESOME perennial weeds in New England are quackgrass and nutsedge (sometimes called nutgrass). University of Massachusetts recommendations for quackgrass call for application of 2 pounds per acre of atrazine on weed foliage in October or late April, and another 2 pounds at planting of corn. For nutsedge, use land for corn and apply 3/4 pound per acre of actual atrazine on prepared seedbed, disk in, and plant corn. One cultivation after this is also recommended.

GROUP FEEDING of dairy cows at Utah State University gave good results. Cows were divided into three groups by production. Top group got grain individually twice a day but middle group got feed twice daily as a group by weighing and spreading grain evenly along manger. Low group was fed grain as group once a day. Amount of grain fed was adjusted every two weeks.

SINCE 1960, land in farms in northeastern states has dropped 9% while number of farms has declined 22%. For same period, total food production in Northeast continues to increase.

GRASS SILAGE cut early or farm-cured hay cut early analyzed about 60% more protein and 18% less crude fiber than late-cut, field-cured hay, according to Cornell University. When fed to dairy cows early-cut grass silage averaged to produce 16 pounds more milk per day than did late-cut field-cured hay. Putting at least part of the grass in the silo helps finish haying early!

ESTABLISHING A START is the first step in growing a good crop of alfalfa. Firm the soil after planting with a culti-packer or press wheels. Inoculate with fresh inoculant the day the land is seeded. If seeded with grain, use $1\frac{1}{2}$ bushels (or less) of oats or barley.

FEDERAL ADMINISTRATION POLICIES affect farmers. Reading between lines of recent statements it appears that (1) an attempt will be made to cut budget for agriculture, probably unsuccessfully; (2) government program for agriculture will continue; (3) farm cooperatives will be favored.

SAVING ON COST of purchased concentrates is important. Ten dollars a ton less will net you as much as producing 350 pounds more milk at \$4.00 per hundredweight. Protein is a big part of cost of purchased feed. It is likely to cost less per pound in a 60% supplement than in a lower percent feed. Urea may be a good buy up to 60 pounds per ton. Buying in quantity and in bulk will save money.

NEW YORK GRAPES to the amount of 123,515 tons were processed in '64. 75.9% were made into sweet juice, 19.8% for wine, 4.3% for other purposes. Concord grapes accounted for 89% of the total.

"FARMERS' CHECKLIST FOR PESTICIDE SAFETY" is title of USDA Program Aid No. 622. Good information; available for 5 cents from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

A FARMERS' COOPERATIVE IN CALIFORNIA has announced the closing of a tomato cannery and plans to explore the possibility of opening a cannery in Mexico. Cause is chaotic labor situation because of failure of Congress to extend law permitting Mexicans to enter U.S. to do seasonal labor on farms.

REPORT IS THAT ROCK "FERTILIZER" is being moved into Northeast from source in Colorado. Price rumored at \$150 per ton. Gypsum has been primary ingredient of some of this material sold in other areas. Better check with your county agent before buying.

RIGHT TO SELL OR LEASE acreage allotments "to family farmers in the same state" was advocated by President Johnson in his farm message to Congress. Would apply to allotments under the several production adjustment programs in existence. If adopted, would hook right to produce to the man rather than to the land. Be alert to opportunities and problems this change would create, if adopted.

FEDERAL MILK ORDER terminated on March 31 for Chicago area because farmers turned down proposed amended order in recent referendum. Dispute is between up-country and nearby farmers over order benefit distribution.

The Song of the Lazy Farmer

My neighbor's nose as can be, he's always checking up on me, I sometimes think that my affairs concern him more than his own cares. Mirandy, too, devotes her time to watching ev'ry single dime that I take in or spend, and she knows ev'ry move I make, by gee. But neither keeps track half as close, or gives advice that's so verbose, as does my partner, good old Frank, who operates the local bank. He never lets me feel alone, he's always here or on the phone to issue orders for the day so we can make our farming pay.

A farm may run, in theory, on work and money equally; in practice, though, his vote's the one that sets whatever will be done; as in the UN. I'm bound tight by that old buzzard's veto right. The only time I get my say is in a little game we play; about each ninety days I go down there and pay off what I owe, then I rear back and sass awhile



and Frank just listens with a smile. When I'm all done, he lets me sign up for a brand-new credit line, and while I'm waiting quietly, he writes new orders down for me.

American Agriculturist, April, 1965

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Several DeKalb Hybrids are sold out, so plan to get your 1965 seed corn early. See your DeKalb dealer NOW.

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The combination of leafy plants and great growth rate yields "mountains" of milk-making forage. For example, Trudan I, a true sudangrass hybrid, can make up to 40 percent more forage per season than other sudangrasses.

Trudan I is palatable and nutritious. Cows eagerly clean up Trudan I green chop . . . tender leaves, fine stems and all. Put up as haylage, Trudan I will give you this green chop goodness year 'round. The protein content has tested 17 percent and higher. Trudan I forage yields 70 percent to 75 percent TDN at recommended cutting stage.

Trudan I is vigorous, versatile. Keeps going through summer slumps better than most forages, making fine quality hay, or succulent pasture.

Trudan I is safer. Prussic acid content is lower in Trudan I than in the sorghum-sudangrass hybrids and most sudangrasses, but good-management safety precautions should always be practiced.

Trudan I is catching on fast. Northrup King's entire supply of Trudan I seed has been sold out every year since it was introduced. Many dealers are already sold out of their 1965 allotment.



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Alfalfas, Sorghums & Special Forages

HOW IT'S DONE

by Robert Dymant



Roger Trump checks the temperature inside a shelter house.

How does the United States Weather Bureau arrive at climatic conditions in Chautauqua County, the state, and the nation? A little-known fact is that there are volunteer weather observers scattered throughout the nation, funneling information back to the Weather Bureau.

One such observer is Roger B. Trump, Westfield, Chautauqua County, New York. Operator of a 200-acre farm, with 50 head of cattle and 25 acres of grapes, Trump has been interested in weather observation since a boy of 12. "Back in 1937," Roger recalls, "a group of area boys formed a science club. It was agreed that each would have a specialty, and mine was the weather."

His brother Fred also was interested in weather observations, and kept official records. When Fred entered the Air Force in 1944, Roger became the official Westfield area weather observer.

All Voluntary

It's all voluntary duty, with no remuneration except the satisfaction of a job well done. The Weather Bureau furnishes all the necessary instruments, such as temperature gauges, rain-measur-

ing equipment, record-keeping forms, and other necessary data. The records are part of long-range climatic forecasts for the area . . . there are similar "weather watchers" in Sherman, Jamestown, and Fredonia.

Roger checks his instruments (housed in a shelter house near his home) once a day — at 8 p.m. Standard Time, 9 p.m. Daylight Saving Time. Notes are made of high and low temperatures, precipitation, snowfall, snow depths, and any unusual weather such as hail, damaging wind, etc. Any sign of a tornado is to be phoned in immediately to the weather bureau in Buffalo. But, so far, Roger hasn't had to make any such calls.

Reports are mailed to Ashville, North Carolina, the official Weather Bureau processing center for the eastern portion of the U. S. Information is also sent once a week to Cornell University, where weather studies are also made.

Recently, Roger was presented a pin in recognition of 20 years of service as a cooperative weather observer by Donald L. Quick, field aide for the U. S. Weather Bureau. Volunteers such as he are doing much to keep us informed about weather conditions and patterns.

WHAT IS "CRISP-AIRE"?

Now, and well into July, apples with the crispness of October and the freshness of Spring are being offered in all our markets. This is because of a relatively new process known as controlled-atmosphere storage, and in New York and New England is identified by the registered service mark "CRISP-AIRE."

Apples start to decline in quality as soon as they are harvested. This is because they "breathe in" oxygen and "breathe out" carbon dioxide. If the temperature is lowered, their rate of respiration is reduced and they "live" longer. This is the basic principle of common refrigerated storage.

In addition, if the amount of oxygen is reduced, the rate of "breathing" is further reduced. This is also lowered by increasing the amount of the end product (carbon dioxide). The decrease in

oxygen and the increase in carbon dioxide, coupled with refrigeration, are the basic principles of controlled-atmosphere storage.

Once the apples are put to "sleep" in a regulated atmosphere, they never fully recover their normal rate of "breathing" when they are taken out of storage in the spring or any time after a 90-day "sleep." This results in a "shelf life" at least twice as long as regular apples removed at the same time.

Because of the abnormally low rate of respiration, controlled-atmosphere apples maintain their "tree-fresh" characteristics to a far greater degree than is possible with other known storage methods. In fact, McIntosh apples (the variety most commonly stored in CA) held experimentally for 2 years were still edible when removed from such storage. — *Rockwood Berry, Executive Vice-President, New York-New England Apple Institute.*

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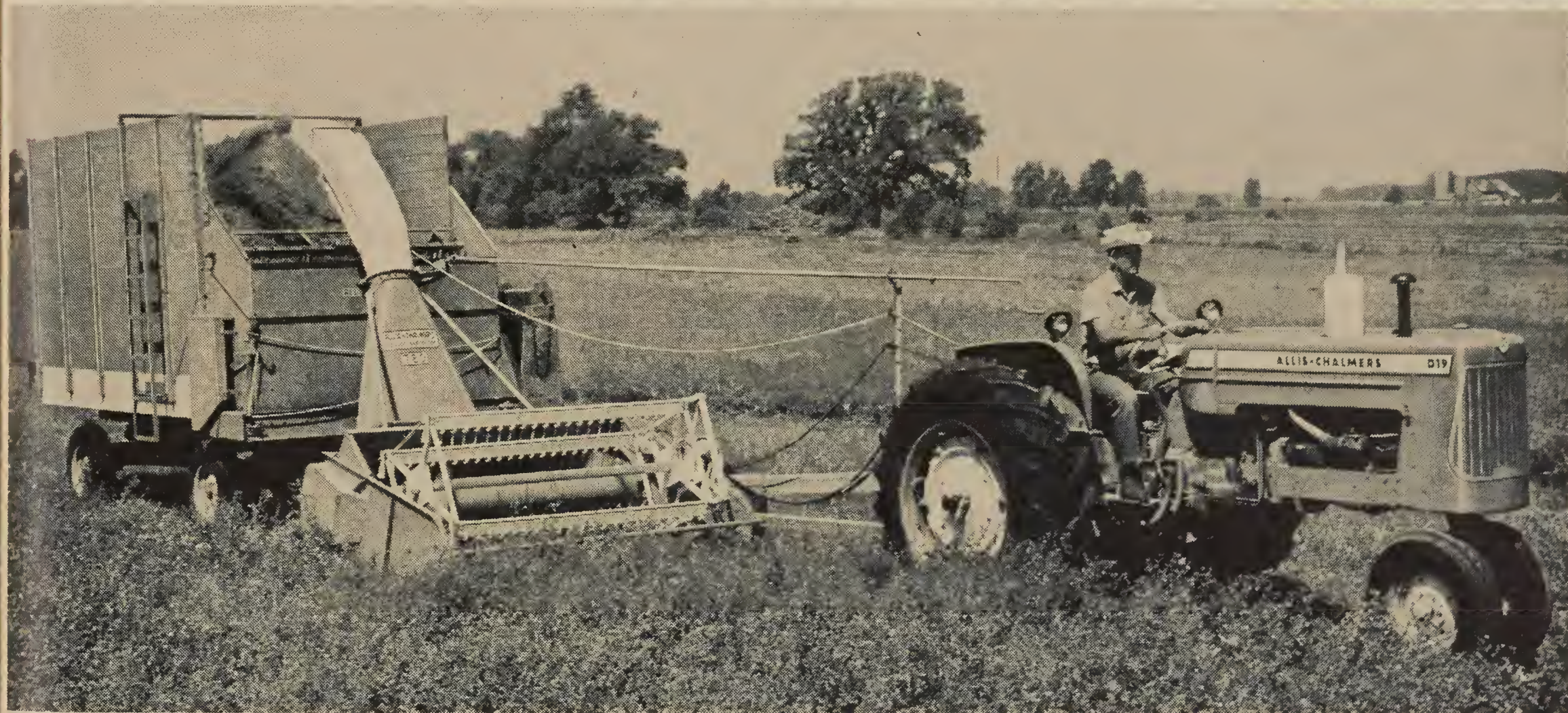
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BLU-KOTE**

Pick up the windrow



Direct cut the crop

Big capacity and uniform cut—just two of the outstanding features of the 780 forage harvester from Allis-Chalmers!

The pickup-equipped 780 is the perfect unit to handle windrowed crops. It moves quickly through the field, picking up, chopping green forage, wilted hay, cured hay or straw. The 6½-foot wide pickup stays on the windrow while 64 fingers comb the stubble and feed material to the auger in a steady

stream. Auger speed is matched to feed roll speed, so the crop moves to the cylinder in a thin layer to be chopped to the fineness you want, from less than ¼" to 2¼".

The direct cut equipped 780 stands out for once-over operation in grasses and legumes. Cuts a full 6½-foot width. Offers finger pickup reel and sickle speed of 1188 strokes per minute for big production.

All 780 heads are quickly switched from direct cut to pickup to corn head, all delivering fine-cut feed that packs firm into your silo.

The 780's six cut and throw knives 36" wide, and fine crop-controlling feed rolls provide uniform cut that makes this forage harvester a winner.

Want better silage and haylage? Then the place to start is with your nearby Allis-Chalmers dealer and a 780!

You can chop fine forage faster with Allis-Chalmers!

A COMPLETE BARN CLEAN-UP IN MINUTES?

No sooner said than done—with a Cornell Barn Cleaner. A typical user reports 16 minutes to clean-up for 37 cows . . . twice daily in fall and winter, once a day in pasturing season. Still going strong after 12 years! Expect these time- and cost-saving advantages when you install a Cornell:



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THE NATIONAL FARMER'S ORGANIZATION..ITS PLACE IN THE NORTHEAST

by the Herkimer County N.F.O.*

FARMERS OF THE Northeast desperately need one powerful organization deriving its strength and effectiveness from national rather than regional membership. Only the NFO collective bargaining program makes it possible for farmers, through the recognized American system of democracy, to do together those things necessary for a profitable agriculture, that they as individuals cannot even hope to accomplish. As long as the farmer is the only unorganized segment in an organized economy, he will continue to receive less and less.

The NFO, with headquarters in Corning, Iowa, was originated in 1955 as a protest movement against the slump in farm prices. At the first National Convention, Oren Lee Staley, who started as a 4-H boy, became a college graduate, and now operates a 400-acre farm, was elected President, an office he has been re-elected to each succeeding year. The merits of the NFO program are so widely accepted that there is now an active and determined membership in twenty-three states. At the 1964 National Convention in Minneapolis, Minnesota, there were over 9,000 voting delegates in attendance, making it the largest convention of its kind in the United States.

Decision Approval

NFO is democracy in action; any major decision has to be approved by a two-thirds vote of the membership. A contract can only be activated with a processor by a two-thirds approval vote of NFO members producing the commodities in question in that area. In this way a bloc vote, which is unfair to the individual farmer, can never be used.

It is a fallacy to believe that it will be as profitable not to be an NFO member. NFO membership agreements will cover at the least 60 percent of the production, and before members would approve a contract with a processor there will be included in the contract a 5 percent bonus for members only, due to the fact that NFO would have controlling production.

The by-laws of NFO allow only farmers who are producers to become members; members can hold an office only when the majority of their income is derived from their farm business. By-laws prohibit NFO from ever becoming involved in buying or selling, thus forgetting the farmer it represents.

NFO's only service is collective bargaining entirely financed by the dues and fees that have been paid by the members. At present, these

dues are \$25 per year and will remain the same until enough strength is achieved to activate contracts with processors. At this time, the dues will be replaced by a one percent fee, which in the case of the dairy farmer would be on gross sales of milk.

There has never been more than a small percentage of overproduction for any given year, and when you group your production, and then control the sale of that production as farmers, there are many different ways to approach the problem of surplus. One approach is that NFO has made provisions in its dealer-contracts for funds to be used for promotional purposes. But, if in spite of all efforts, one of which would be intensive advertising, a surplus does arise at any time, NFO membership agreements make the provision allowing farmers themselves to decide what should be done about it.

No Violence

NFO does not want or condone violence; its members know that violence can only hurt the farmer's cause. Those who would call NFO violent should realize that most workers bargain collectively for wages, working hours, and other common interest. Manufacturing companies control the supply of their products; physicians, dentists, lawyers, teachers, barbers, bankers, and many others form associations which limit entry into their professions and set fees at levels which they themselves judge reasonable.

The following chart (corrected to 3.7 percent butterfat) shows the price of milk paid to New York State farmers and their average cost of production. This information was taken from Cornell's Handbook of Dairy Economics of 1964.

Year	Price Rec'd	Cost of Production
1957	\$4.58	\$4.68
1959	4.58	4.75
1961	4.32	4.85
1963	4.26	4.92

Most dairy farmers in the Northeast from personal experience are brutally becoming aware that they are selling at depressed prices, while buying at inflationary prices. Since World War II the farmer has been forced to greatly expand his investment; his weekly work hours, in spite of labor-saving equipment, have in most cases almost doubled, while his net income, which is what the farm family depends on to meet its obligations, is drastically decreasing. Certainly we question the ability of the family farm, as we know it today, to exist much longer under these conditions.

This situation that New York dairymen find themselves in is history repeating itself.

(Continued on page 55)

WHAT A DIFFERENCE

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BOSTON, MASS. MAYAGUEZ, P.R.

American Agriculturist, April, 1965

Some time in 1908, members of the Orange County Pomona Grange at its regular meeting decided that the time was ripe for dairymen to organize. Local meetings were held and the Dairymen's League was unanimously adopted for an organization.

The first plank in the new platform stipulated that only bonafide producers were eligible for membership in the association. This was to be a farmers' organization and conducted by farmers in its every design and feature. One new and prominent feature was, even at that early date, the desire to use collective bargaining to improve the lot of the dairyman. This new organization advocated that farmers be paid for their milk on a "cost of production plus" basis.

In 1919 the League called a successful milk strike and achieved the "cost of production plus" price for its members. The milk strike of 1919 does have an important place in history because it demonstrated the strength of a united front of farmers in seeking a square deal and a just price for their milk.

In May of 1921 the Dairymen's League Cooperative, a complete and thorough-going merchandising association took the place of the old Dairymen's League, Inc. which had been operating solely as a bargaining association. This is a fact that looms large in the milk picture. The old League, using the Warren formula, determined the cost of producing milk

and from that base determined the price to be paid to farmers for milk.

After the formation of the Co-operative Association, this feature was abandoned, the price to farmers was below cost of production, and the farmers' organization did nothing about it. History connects factors that have been employed through the years, often by self-seeking interests connected with the management of the farmers business, which have at times brought the dairy farmer almost to the door of bankruptcy.

Discontent

There has been discontent continually since the days of 1908 and 1909, and from observation nothing has been gained toward the goal set by men of vision in those early days in the milk business. Farmers today face many of the same conditions as then, only with a higher cost of production to make earning a living a little more impossible. Due to the steadily dropping price of milk and the ever-increasing cost of production, dairymen find themselves caught in the squeeze, and are forced to increase production if they are to continue their business.

For a few, increasing efficiency will answer the problem of the price squeeze, without adding production, but for most of us who have reached the peak of efficiency and still cannot compete, additional production is the only answer. This added production inflicts a

lower blend price upon us, so it seems the dairyman is in trouble whichever way he turns. He has only one turn left, and that is NFO.

One large organization has always felt that the farmer's problem could be solved by the law of supply and demand. Their members have waited over forty years for this to succeed and are still waiting. Most dairy farmers of today can't wait another forty years, because in much less time than that there will be very few individually-owned farms left if the present price trends continue. In foreign countries this is called collective farming but is preferred to be called integrated farming in our country.

While other segments are enjoying shorter work hours at higher pay plus numerous other benefits, the farmer is allowing himself to be looked upon as a second-class citizen, even though he is producing the most essential commodity in our country. Money has been spent to educate the farmer into efficiency; this education apparently has been too complete, and now he is being penalized instead of praised when 7 percent of our total population can feed the 100 percent and still have enough left for hungry people around the world. Without the American farmer's ability and incentive to produce, this nation would not be the world power it has become, but the farmer has got to be able to show a profit and encourage his sons to remain on the farm in

order to protect this incentive for future generations.

Farmers can no longer look to the government for fair prices, as the government's main concern is to provide adequate food at low prices for the non-farm consumer who controls the vote.

Long Drought

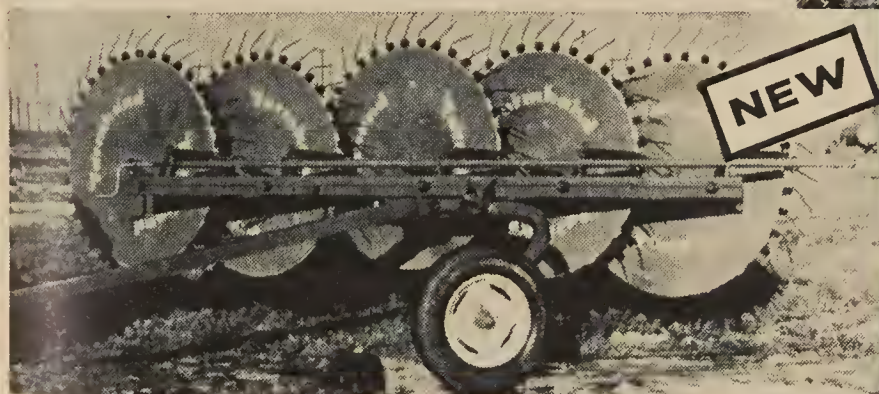
The last three years of drought have been a great hardship, but only for the farmer, as the consumer is now spending the smallest share of his income in history on food (18 cents of \$1). The expense of the drought has only compounded the farmer's misery and added to his main problem . . . a continuously low and inadequate price for his product.

The farmer only has himself to blame for allowing this injustice against him. Because of his indifference and passive acceptance, he has nothing to say about the disinterest in his financial plight and lack of sincere and united attempts to provide him with a fair price. In reality, he has let himself become the forgotten man in the market place.

The achievement of the NFO goals will stabilize farm prices of the future through the farmers' own efforts; thereby restoring to the American economy a firm foundation based on the soundness of its basic industry . . . American agriculture . . . a service that will help insure the welfare and security of every man, woman and child of this nation.

Try "wheel-raking" with a FARMHAND for big savings in time and money!..

UP TO \$100 LESS than ordinary rakes! That's one of the reasons so many farmers have switched to "wheel-raking" with the Farmhand Model 25, the nation's best-selling rake. Another is the clean, gentle raking action you get only with Farmhand's independently suspended wheels and patented double coil-spring teeth. Raking wheels are crank-adjusted, and may be converted to hydraulic lift without extra parts. With no gears, pulley, ratchets, etc., to cause trouble, this is the simplest, lowest-upkeep rake on the market.



NEW "F-SERIES" RAKES are bigger, heavier, with more convenience features. Unique *add-on* feature enables you to switch basic "F-5" 5-wheel rake to a 6 or 7-wheel model raking to 11'. Larger "F-7" model adapts to 8 or 9-wheel rake handling a 14' swath. You'll get all the hay, light or heavy, over any terrain.



NEW WINDROW TURNER gets your crop dried out and ready to put up a lot sooner. Mounts on most tractors. Angle and ground pressure of the 2 raking wheels easily adjustable. No windrow too small or too large for this low-cost hay tool.

Ask for a free demonstration on your farm!



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POULTRY POINTERS

IS GRIT NECESSARY

Is grit necessary when hens are being fed ground grain? A Wayne Research Center test showed a slight benefit—the grit-fed birds averaged 2.6 percent higher production and produced eggs with about 2 percent less feed. All of the grain in the ration was corn; hens were fed (free-choice) either oyster shell or a coarse, granulated limestone. About two-thirds of their calcium intake came from the free choice sources, and one-third from the mixed ration.

Comparing granulated limestone and oyster shell as sources of free-choice calcium, the hens receiving oyster shell consumed more calcium and performed better.

If all of the hens' calcium needs were supplied by a mixed feed it is possible that grit need not be fed. But the conclusion is that the cost is small, and a routine practice of feeding grit is probably good insurance.

Limestone vs Oyster Shell

In a test, high levels of calcium in mixed rations were furnished to layers by either oyster shell or ground limestone. Total calcium was 4.5 percent. This high level was chosen so that differences in feed intake and performance could be expressed. Both base rations contained 0.5 percent calcium; then 10.6 percent of supplemental shell or limestone was mixed in the rations to furnish an additional 4 percent calcium.

Feed consumption was identical. The oyster shell hens laid fewer eggs but weighed more at the end of the project. It is possible that individual hens either over-consumed or under-consumed calcium while sorting out the oyster shell which was mixed in the ration. It is significant that ground limestone performed as well as oyster shell.

LEASING FOR POULTRYMEN

FRANK D. REED, Extension economist in marketing at the University of Maine, feels that leasing of poultry buildings and equipment has a legitimate place in the poultry financing picture. However, he suggests careful individual evaluation.

Comparisons

The advantage of leasing is that it provides 100 percent financing, and the lease payments are tax deductible as operating expenses. On the other hand, the total cost under leasing is greater than a cash payment—or even credit at normal interest rates. And there can be a temptation to unsound expansion with leasing.

Evaluation of a lease plan as to actual cost compared to a conventional credit transaction is easy. Merely compare the payment schedule with a standard amorti-

zation or credit payment schedule over the same period of time.

But these are not the only considerations. A lease plan usually includes insurance cost—so to the conventional credit cost must be added insurance expense. Also, at the end of the payment period, in a conventional credit plan you own the equipment, whereas with a lease there is usually a settlement charge, or some sort of provision for continuation at a lower lease rate.

Earning Capacity

There are cases where alternative conventional credit, while cheaper, may not be available; and perhaps the 100 percent financing may be needed. If this is the case, a lease may prove to be good business—but only if the earning capacity of the new equipment or building exceeds the repayment schedule rate.

This is where some careful budgeting on a realistic basis comes in, with allowance for at least minimum family living expenses as part of it.

As for the tax deductible feature of the lease payments, this is important only when there is income to report, particularly in the high income brackets. And the savings in income tax in this manner should be compared to the alternative investment credit allowance for qualifying capital items now provided by the Internal Revenue.

EGG PUSHER

In a speech entitled "How to Promote Eggs," Herbert F. Grayson, Vice President, Cooper, Strock & Scannell, Inc., Milwaukee marketing communications firm, recently likened some of the problems and opportunities facing the egg industry to those which confronted another unbranded commodity, the banana, a few years ago. For 80 years one banana looked like any other banana, until United Fruit Company initiated its successful Chiquita Brand program.

Grayson warned that unless it initiates a full advertising program to supplement its promotional and publicity activities, the egg industry is in further danger of losing its place in America's kitchen. Egg consumption per capita has dropped from 393 in 1951 to 315 in 1963, despite a 2.5 percent decrease in retail egg prices, a 9 percent increase in egg production and a 44 percent increase in consumer income.

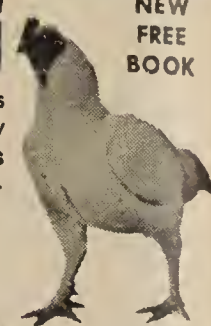
Citing an Ohio State University survey which stated that teenage girls need more convincing concerning egg values, Grayson stated, "Teenage girls are tomorrow's young marrieds, homemakers and mothers. They not only need convincing as teenagers, they need it right from the basinet."

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Food For The Spirit



by Robert Clingan

EASTER BELONGS TO ALL OF US

A man once excused himself from attending the Easter services of his church by calling attention to the pagan elements in its observance.

First he pointed out the sideline accretions to the Christian story. No one can take issue with his references to the Easter bunny, the colored eggs, and the tiny chicks, real and artificial. He struck most deeply by pointing out the root word for Easter. He was right when he told me that Easter stands for the Teuton goddess of spring, a pagan deity if there ever was one.

How did a pagan festival of spring come to be identified with the cardinal doctrines of our Christian faith?

The answer comes in our understanding of the strategy of the early missionaries who won northern Europe to Christianity. The pioneer strategists of the Christian mission believed in seizing everything that could be at home in the Christian life and baptizing it in the name of Christ.

When they examined the pagan festival of spring, they must have found a joy that belonged more fully to the springtime of the soul. Every observance of the lengthening days and the shortening nights belonged even more to the worship of Him who is the Light of the World and the sun of every Christian life.

"Forget the Goddess of Spring," they cried, "and celebrate instead the story of the resurrection of Jesus Christ, our Lord. You see, it all belongs together . . . Christ our Risen Lord, and the coming of the spring to the earth to renew its life and deny the signs of death on every side."

The roots of the observance of Easter are many and deep. They include the pre-Christian rites of spring that continue in our Christian and sub-Christian celebration of Easter. Even the sunrise service reflects a re-enactment of pre-Christian worship of the sun, now re-interpreted in terms of an early morning visit to an empty tomb.

Perhaps the more pagan elements ought to be played down or ignored. We could get along without the Easter bunny or even colored eggs that reflect the fertility rites of a pagan culture, or the commercialization of modern life. Yet deep within the experience of the human race there are profound feelings that belong to all people of all varieties of religious experience. These are the feelings that belong to a people who face the rigors of a cold winter and welcome with real joy the coming of every spring . . . the people who

silently observe the signs of death in the brown field, the leafless trees, and the dead stalks of perennial flowers.

Suddenly it becomes spring. The fields quickly change from brown or grey to green. The dead branches of the trees burst forth into leaf. The buried bulbs push forth new shoots with the promise of summer flowers. Children venture forth without the burden of heavy winter clothing . . . life seems to begin again.

To this common experience of people in the northern hemisphere of the earth the resurrection of Jesus Christ makes sense. The story of his being raised of God from death to life is simply one more expression of the love and power of God, who releases the earth each spring from the reign of death to the power of life. Those who see the hand of God each spring can believe in the power of God to raise our Lord from the "pangs of death" to glorious resurrected life.

Those who believe in this "power of the resurrection," who have committed themselves in trust and obedience to their Risen Lord, discover within themselves renewal. This renewal of life can be described as "The Springtime of the Soul." The committed ones know the truth of the saying of our Lord, "I am the resurrection and the life;" and again, "Behold, I make all things new."

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Calling All Gardeners



by Arthur J. Pratt*

MANY SUMMER garden problems can be worked on even before you start doing much outdoors. Here are some things you can do before planting, or have plans underway so you will be all set to move on them when gardening time rolls around.

For example, you can't get a good crop of tomatoes under or near black walnut trees. The roots of these trees secrete a toxin which causes the tomatoes to wilt and eventually die. This seems to come only from living walnut roots; I have mulched tomatoes with black walnut sawdust with no harmful effect. The roots of a black walnut tree may spread 75 feet away from the trunk.

Sweet Or Sour

Lime — either in excess or a deficiency — may cause a garden failure. A gardener should never use lime unless a soil test shows that it is needed. Out of several hundred garden soil tests made at Cornell, about one-third of them needed lime; one-third were just right without adding any lime; and the balance had been limed so heavily that crops were failing to grow. The proper pH or acidity for a vegetable garden is between 6.0 and 6.8. The only way to be sure is to make a simple soil acidity test; take a soil sample to your county agent or ask him about an inexpensive testing kit.

Radishes that form only a slender root, beets which develop dark spots and cauliflower that has hollow stalks with brown areas. all show boron deficiency. These problems are likely only in gardens that have had too much lime or wood ashes, but the situation can be corrected by putting one ounce of borax on 100 square feet of garden.

If the pH is above 7.2 it may be necessary to bring it down by putting on some dusting sulfur — but don't overdo it. One pound of dusting sulfur to each 100 square feet will be enough on an average loam, and half of that will be enough on a sand. Better get some advice from your county agent or garden center along with the soil test.

Mulches

Organic mulches such as leaves, straw, lawn clippings and sawdust will do a good job of controlling most annual weeds, reducing runoff from heavy rains, and reducing evaporation of water from the soil. Water lost by evaporation from

the soil may be as great for the full season as water given off by the plants as transpiration, and is much greater early in the season.

Black plastic mulch is fairly easy to apply, and it is economical to use. It will control all weeds, both annual and perennial, except for a few that may come up close to the plant. It will stop water from evaporating from the soil, and has increased the yield of every crop on which it has been tested.

Did you ever use sawdust or straw mulch and find that your crops became yellow and stunted? Perhaps you thought it was because these materials made the soil too acid. Not so! The use of sawdust mulch over a period of years actually slows down the rate at which the soil becomes acid.

Nitrogen Shortage

The reason for the yellowing of sawdust-mulched crops is that bacteria and fungi start to break down the mulch as soon as it is applied. These micro-organisms are better able to take up nitrogen in the formation of their own bodies than are the plants — so the plants become nitrogen-starved. Use a handful of ammonium nitrate to a bushel of sawdust and the crops will green up and start to grow normally again. Dissolve one level tablespoonful of ammonium nitrate in a gallon of water and water the plants with this to get a quicker response.

The lack of water is a factor that limits production of one or more crops in nearly every garden every year. Some folks don't have enough late in the season when droughts are likely to be most serious, and some do have enough to irrigate all summer. Those who do have plenty of water should irrigate right from planting time. Water should be applied whenever it hasn't rained for from 5 to 7 days.

Those folks who have enough water to irrigate only at the start of the season should at least make the start, even though they may have to stop whenever droughts are prolonged. Some say that once one starts to irrigate he must keep it up; this is not true.

Irrigation should apply the water so slowly that none stands on the surface and there is no runoff. You can't control the rate of rainfall, but there is no excuse for puddling the soil by fast irrigation. The soil will later become hard and packed by too fast irrigating, just like it does after a hard shower. A light amount of organic litter or mulch scattered over the

(Continued on page 59)

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soil surface will greatly increase the rate of water intake by heavy soils.

Organic and inorganic fertilizers are both good if used properly and in the right amounts. Since inorganic fertilizers are much more concentrated, crop injury by them is more common. A good application of a 10-10-10 fertilizer would be from 2 to 4 pounds to 100 square feet of garden. To get the same fertility value from stable manure you would need to use from 40 to 80 pounds, plus some phosphate to make up for the limited amount of that nutrient in manure.

The safest way to use any fertilizer is to spread it (broadcast) all over the area to be planted, and then work it in with your rotary tiller, or however you fit your garden. Apply the right amount. Half of the recommended amount isn't likely to be enough — and twice the recommendation may cause injury to the crop.

All fertilizers, both organic and inorganic, are fundamentally chemicals. Because they are more complex, the organics are slower to break down and hence they last longer. If you need a quickly-available fertilizer, you don't want an organic or "natural" one. If you want "organics," be prepared to pay several times as much. They are more expensive to obtain, more expensive to handle (because less concentrated), and the retail dealer often takes a higher markup.

Plant Often

Most gardeners wait too late to start planting the garden, and finish the planting too early. Memorial Day may be a good time to plant beans, but it is much too late to plant onions; the time to plant radishes is every Saturday afternoon from the time the ground first gets dry enough to work until early September — but plant only 5 feet of row each time and you will always have good ones, especially if you mulch them with leaves and keep them growing.

Jiffy pots and other makes of treated, pressed peat moss pots are excellent for starting plants. They can be set in the ground pot and all, and with little or no "transplant check" to the growth of the plants.

Plant four muskmelon seeds in each 2-inch Jiffy pot about May 15 and keep them in a warm, sunny window, or a hotbed or greenhouse if you have one. If more than two plants grow, remove the extras. Set them in the garden at the end of the first week in June. Cover the ground around the newly-set plants with black plastic mulch and you'll have the best crop of melons you ever had.

Frost can best be controlled in the average home garden by the use of covers. Many crops such as onions, radishes, lettuce, beets, etc. will withstand temperatures down to 25 F. or even 20 F, but others — like tomatoes, muskmelons, cucumbers and beans — are killed by even a light frost. The best way to avoid this injury is to cover the

plants on nights when frost is predicted or likely. Old blankets, bur-lap bags, or several thicknesses of newspaper will do the job. Strawberries in bloom need protection.

Irrigation can be used to protect larger areas against frost damage. The system must be started as soon as the temperature of an exposed thermometer at plant level gets down to 33 F.

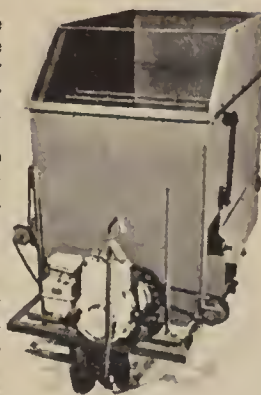
Hotcaps and hottents are used to protect early-set plants against wind and low temperatures. They are especially good in April, and very useful on even the cool-season crops. On bright and sunny (but cool and windy) days, the air temperature under the hotcap may be from 10 to 25 degrees higher than in the open only inches away, but when the sun sets the temperature difference may be reduced to only a degree or two. Therefore, hotcaps do not offer much frost protection, but do improve the growing conditions around the plants on cool sunny days.

On hot sunny days they may increase the temperature too much and actually injure plants. As soon as the weather gets hot, the top of the hotcap should be slit for ventilation. The size of the opening should be increased over a period of a week or ten days until the entire cap is finally removed.

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FAMOUS Norwalk White Embden, Toulouse and White Chinese goslings. Weeder geese. Mammoth White Pekin, Rouen, Indian Runner and Flying Mallard ducklings, Guinea Keets. Wikel's Norwalk Goose Hatchery, Collins, Ohio.

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Bulls, Cows, Bred & Open Heifers, Feeders

April 30 (7:00 P.M.)—Caledonia (breeding cattle only)

Empire Stock Yards

May 8 (1:00 P.M.)—Altamont (breeders & feeders)

Fair Grounds

May 22 (1:00 P.M.)—Mohawk Valley (breeders & feeders)

Arthur Schallenberg Farm, Westernville

FOR INFORMATION CONTACT:

Sidney Cleveland, Albion (Caledonia Sale)

Margaret Viola, Fleischmanns (Altamont Sale)

Raymond Clark, Clinton (Mohawk Valley Sale)

22nd Annual Sale

NEW YORK HEREFORD ASSOCIATION

Animal Husbandry Pavilion

Cornell University, Ithaca, N. Y.

SAT., APRIL 17, 1965

Show 10:00 a.m. Sale 12:30 p.m.

Col. Morris Fannon, Auctioneer

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23 Bulls and 32 Heifers

both horned and polled

Judge of Show, Leland Clark

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HAMPSHIRE BOARS, gilts and weanling pigs. Certified meat type. Ralph Blik, Williamson, N. Y. Phone 315-LT-9-3087.

MONTHLY MARYLAND FEEDER Pig Sales —1:30. 2nd Monday—Caroline Sales, Denton, 4th Monday—Livestock Exchange, Boonsboro, 4th Thursday (4th Fri.—Nov.)—Rudnick & Sons, Galena. 23,664 vaccinated—health inspected—graded pigs sold by pound to highest bidder 1964. Maryland Swine Producers, Fairgrounds, Timonium.

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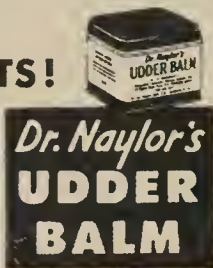
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July Issue.....Closes June 1

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"Happy Easter"

from Alberta Shackelton

THIS YEAR, coming as late as it does, Easter really means spring! Bring this wonderful season to your Easter dinner table with a centerpiece of fresh flowers, your choice linens, nicest china, gleaming silver, and your family's favorite spring foods.

Easter traditions and foods vary from land to land and even from one part of our country to another. Since lamb seems to be popular for Easter in our area, our menu features this meat for festive Easter feasting.

EASTER DINNER MENU

Frosted Nectar
(Apricot Nectar with Lime Sherbet)

Roast Leg of Spring Lamb — Water Cress Garnish — Mint Sauce

Buttered Paprika New Potatoes

Springtime Asparagus
(Asparagus Spears Hollandaise on Toast Points)

Mixed Fruit Platter — Grenadine Dressing

Triple Clover Leaves
(White, Cornmeal, Whole Wheat)

Strawberry Angel Delight

Coffee

ROAST LEG OF LAMB

5 to 6 pound leg of lamb
Salt and pepper

Do not have "fell" removed from the leg of lamb. This helps preserve shape of the leg during roasting, retains juices, and shortens the cooking time. Wipe lamb with a damp cloth and rub with salt and pepper. If you wish to rub the surface with a mixture of herbs, a combination of ground rosemary, paprika, sweet basil, salt and pepper is popular.

Place leg of lamb, fell side up, on a rack in a shallow roasting pan. If you use a thermometer, insert it so the bulb reaches center of thick round of leg but does not rest on bone or fat.

Roast lamb in a slow oven (325) 30 to 35 minutes per pound, or until the meat thermometer registers 175 degrees for medium or 180 for well done. Do not add water and do not cover. Basting is not necessary.

Remove the roast to a hot platter and surround with buttered, paprika-coated small new potatoes; garnish with parsley or water cress. Serve with tart mint sauce or mint jelly. If you use mint sauce, it may be put in a large grapefruit half and placed right on serving platter.

Carving hints for leg of lamb: Place leg of lamb with shank bone to carver's right and thick meaty section to far side of platter. Remove several slices of meat from the thin side, then turn leg to rest on the cut surface.

With fork inserted at the left end, carve thin slices down to leg bone. Run knife along the bone, releas-

ing all slices at once. The carver may, if desired, remove the fell before starting to carve. A 6 or 7-pound leg of lamb will yield 15 to 18 slices when carved this way, with second servings cut from meat remaining on legbone.

SPRINGTIME ASPARAGUS

2 to 3 pounds fresh asparagus (for 6 servings)

2 egg yolks
3 tablespoons lemon juice
1 stick (1/2 cup) very cold butter
5 slices bread, toasted and cut in triangles

Wash asparagus and snap off rough ends. Place in 2 layers in medium sized skillet or large-bottom sauce pan. Sprinkle with salt and pour on boiling water to a depth of about 1 inch. Boil a few minutes uncovered; then cover pan and boil 12 to 15 minutes, or until lower stalks are fork-tender.

While asparagus is cooking, make Hollandaise Sauce, as follows: Combine egg yolks and lemon juice in a small saucepan and add one-half of the stick of very cold butter. Stir constantly with a wooden spoon over very low heat until butter is melted. Then add other half stick of butter and continue stirring slowly over low heat until this butter is melted and sauce is thickened.

To serve asparagus, arrange toast triangles around edge of oval or rectangular platter. Place half of the asparagus spears on toast facing one way and rest of asparagus facing in opposite direction. Pour Hollandaise Sauce over cut ends of the asparagus in center of platter. Asparagus spears can be



Leg of lamb, roasted to a golden brown, is a favorite main course for Easter dinner.

lifted from cooking pan easily with a pancake turner or two forks.

MIXED FRUIT PLATTER

On your prettiest large round platter, arrange in separate sections fresh seasonal and other favorite fruits, crisp salad greens (curly chicory and spears of endive are attractive), and pecan or walnut halves.

Suggestions might be orange slices, pineapple chunks, sections of fresh or firm canned pears, banana sticks dipped in orange juice and sprinkled with coconut, avocado slices or chunks, maraschino cherries with stems or fresh whole strawberries. Allow enough space in center of platter to place a footed sherbet glass filled with salad dressing, blended with a little grenadine and topped with a mint sprig.

STRAWBERRY ANGEL DELIGHT

1 package angel food mix
2 envelopes (2 tablespoons) unflavored gelatin
3/4 cup sugar, divided
1/4 teaspoon salt
4 eggs, separated
1/2 cup water
2 10 oz. packages frozen sliced strawberries
2 tablespoons lemon juice
2 teaspoons grated lemon rind
1 cup heavy cream, whipped

A day or two ahead of making dessert, bake angel food cake according to directions on package. Invert and cool thoroughly. Remove from pan and split in 3 crosswise slices when ready to complete dessert.

Combine gelatin, 1/4 cup of the sugar, salt, and egg yolks mixed with the water. Add 1 package of the frozen strawberries. Cook over low heat (you may use a double boiler if you wish), stirring constantly, until gelatin is dissolved and strawberries thawed. Remove from heat and add second package strawberries, lemon juice and rind.

How excited the children will be when this Easter bunny is served for dessert! The only trouble... he's too pretty to eat.

Stir until berries are thawed.

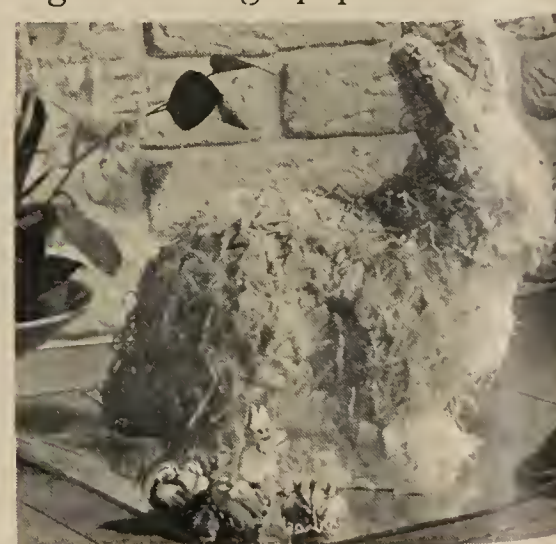
Chill in refrigerator or in a bowl of ice cubes and water, stirring occasionally, until mixture mounds when dropped from the spoon. Beat egg whites until stiff; beat in remaining 1/2 cup sugar until firm peaks form. Fold in the gelatin mixture, then the whipped cream. Add a few drops of red vegetable coloring if mixture seems too pale.

Spread about half of the gelatin- berry mixture between cake layers; use remainder to "frost" sides and top of cake. Chill thoroughly. (Dessert may be made a day ahead of serving.) Slice in wedges to serve and, if desired, top with slightly thawed whole or sliced strawberries, or fresh berries when available. Serves 12 to 14.

Easter Bunny Cake

Would you like to make an Easter cake like the one pictured? Then, look for an Easter bunny mold in the housewares section of your department store. If you do not find one in your area, you can order a mold from the MAID OF SCANDINAVIA COMPANY, 3245 Raleigh Ave., Minneapolis, Minn. 55416.

Ask for No. 202N — BUNNY CAKE MOLD, 10" size (2-piece, cast aluminum). The charge is \$4.00 plus 50 cents for handling. Be sure to ask for a copy of the instruction sheet. Also ask for a copy of their General Catalog, as it has many ideas for special cooking and baking equipment.



A TREMENDOUS RANGE of most interesting plants come under the classification of broad-leaved evergreens. Among these are Mahonia (Oregon Holly Grape), Azaleas, Rhododendrons, Ilex (Holly), Mountain Laurel, Boxwood, and such.

Many of these evergreens can be grown in the Northeast by giving them a little extra care and attention. Our Ithaca, New York, area is in Zone 5, while much of the area along the Atlantic Coast is Zone 6 and has a milder climate.

Contrary to first thought, these evergreens should be planted on the north side of your buildings or hedges. This is because plantsmen have found that most damage and lack of hardiness are caused by rapid freezing and thawing during the winter months, particularly February and March. Any of this material should be planted where it is free from direct winter winds and direct, bright sunlight.

Woodsy areas offer ideal locations provided you can counteract the usually heavy tree root systems. This can be done by eliminating small feeder roots in open sections of the woods and by creating a good planting pocket of growth media. This should be a good, loamy soil mixed 50-50 with peat moss. In general, these plants require lots of moisture, but at the same time, good drainage. They will not tolerate "wet feet." Where soils are heavy clay or wet, tile drains may be used; or you can create a raised bed section with a



If your soil is heavy clay or real wet, make a raised-bed area for rhododendrons. Build a low retaining wall and fill in with a good, loamy soil mix.

low retaining wall of wood or stone. See illustration.

Areas between the house and walk, or against your house foundation, can be made most attractive with these plants, but as mentioned before, be sure to remember the winter sun exposure. Also, since most soils around foundations are poor at best, as well as overdrained, you'll have to create an artificial woodsy soil to a depth of two or three feet. If properly done, the results will be worth all the effort.

Planting procedures are much the same as for any other "balled and burlaped" plant. Dig the hole several inches wider than the ball and perhaps four inches deeper. Put your prepared soil mix under the ball, setting the plant at the same depth as it grew. This is easily determined by the color change in the plant stem. Backfill the hole with your prepared mixture to about one-half its depth;

water well and tamp down lightly.

Next, cut the string on the ball, tuck burlap into wet fill, and finish filling the hole. Leave a saucer-shaped depression around the plant to retain water.

Apply a three-inch mulch over the area. Peat moss is no longer considered a good mulch for this type of plant, since it tends to cause too shallow rooting, tends to "heave" badly in winter, and becomes too compact. Wood chips, sawdust, oak leaves, or pine needles are excellent. It is important that nitrogen and a little acid be added to your soil mixture and mulches. Check with your Extension Service or County Agent for your particular soil requirements.

Since most of these plants are shallow rooted, it follows that hoeing or cultivating will damage the root systems. This means hand weeding only! The mulch should be renewed to a depth of about two inches each fall after a few good

frosts. It is imperative that ample moisture be provided through the year, particularly during May and June when the plants are normally flowering.

For thirty years we have experimented with many varieties of this type of plant material. In the Rhododendrons, Rhododendron Maximum and Catawbiense do well if planted under proper environmental conditions. Also, many of the hybrids do very well for us here — Nova Zembla, America, and Cunningham White.

Before investing in Rhododendrons, check hardness in your area with neighbors or a local nurseryman. Pieris and Andromeda do well in this location, but we have trouble with Mountain Laurel, despite the fact that the hills fifty miles south of us are covered with it.

Azaleas (really deciduous Rhododendrons) are a real delight. Formerly the Kurume, Indian, and Glen Dale types were questionable in this locale, but now we have Mollis and the many beautiful hybrids that are completely hardy and not even fussy as to location.

Much research has already been done on these very satisfactory plants, and outstanding hardy hybrids are coming onto the market each year. It is even possible to grow some of the Hollies in sheltered locations in our area. I will remain rather silent on these, however, for in the rugged winter of 1960, we lost whole blocks of them in our nursery.



MOLASSES PECAN COOKIES

- 1-1/2 cups flour
- 1/2 teaspoon salt
- 3/4 teaspoon baking soda
- 1/2 cup butter or margarine
- 3/4 cup sugar
- 1 egg
- 1/3 cup Brer Rabbit Molasses
- 3/4 cup pecans, chopped

Combine and sift dry ingredients. Cream shortening, sugar and egg; stir in molasses. Thoroughly blend the two mixtures. Mix in chopped nuts. Drop rounded teaspoonfuls on Teflon cookie pan or greased cookie sheet. Use the tip of a teaspoon to press a hollow in center of each cookie. Fill with orange-date mixture and top with pecan quarters. Bake in a moderately hot oven, 350°, about 15 minutes. Makes about 3 dozen cookies.

FILLING: In a saucepan mix 1½ cups cut-up dates, ½ cup orange marmalade and ¼ cup water. Cook and stir over low heat until thick. Mix ¼ cup orange juice, or water, with 1 tablespoon cornstarch. Stir into cooked mixture and continue to stir over low heat until very thick. Cool before using as filling.

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Finesse with Fabrics

by Alice P. Stein

Wise Choices Essential To Successful Sewing

Have you ever had a money-saving sewing project turn into an expensive failure because you discovered, too late that you had chosen the wrong fabric? Most of us have at one time or another, and it's frustrating, isn't it, especially after all that work?

Choosing fabrics that look well and perform the way you want them to is the first important step toward success in sewing, and learning to select wisely can lead the way toward a more attractive family wardrobe without increased cost.

Mrs. Elgin Hundtoft of Ithaca, N.Y., shown in the adjacent photograph, came to me recently for some suggestions as to just how she might do this. She was troubled because she had made the printed blouse her daughter, Patty, is wearing and the printed jumper she is holding, and then concluded that they really did not look well together. What had she done wrong? . . . And what could she do about it now?

Soon we were discussing the problems associated with choosing fabrics for appearance. First, we talked about general selection, then about specific, imaginative ways of using fabrics. These topics will be covered in two articles, and although we will be talking in terms of fabrics for clothing, some of the suggestions may be applied also to home decorating.

We decided that there are two important things to consider when setting out to buy a fabric: the article to be made and the wearer. Have the pattern in hand for frequent reference, and the wearer clearly in mind.

Ask Questions

As you look at the pattern and think about fabrics, ask yourself some pertinent questions. At what season will this garment be worn, or might it be something that could go throughout the year? An increasing number of garments are designed for use all year round, and cotton fabrics are used for them. There is a real advantage in these, especially for children who outgrow things so rapidly anyway. Every little girl likes to have one or two wool skirts and corduroy jumpers to wear just during the cold months, but the most practical basic ingredient in any child's wardrobe is the cotton items which know no season.

The next question is: How much care are you going to be willing to give this item? Nowadays, there is really no need to get involved in finicky and time consuming care problems when there are so many materials available that require only washing and touch-up ironing. The cotton that sells at four yards for a dollar may be no bargain at all when you consider the

extra ironing time it will take. (It also is likely to fade rapidly.) Good looking materials are available at only slightly higher cost, and they will keep their colors longer, wear better and take less care, so that the small difference in cost is justified many times over.

Now ask how much sewing skill you will need for this project. If you are a beginning sewer, or if the garment has many seams, try to avoid plaids, large stripes, or regular, geometric patterns which require matching where seams come together. These only add another complication to the task, and there are many lovely fabrics in plain colors, tweeds and textures, tiny checks and prints which are just as suitable and much easier to sew. Also, if the design is one which emphasizes the artistic placing of seams, you may wish to use a plain fabric, which will show the seams to best advantage.

In present-day sewing, the grain of a fabric also is considered very important. Modern methods call for materials that are grain-perfect, that is, ones where the lengthwise and crosswise threads are exactly at right angles to one another. It is especially important that geometric designs be printed precisely on grain. Otherwise, you will end up with rows of design running off straight edges at odd places. If you have doubts about how to check and correct the grain of fabrics, consult a sewing book before you shop.

If the garment or outfit you are making requires more than one fabric, or offers possibilities for contrasts, you will need to consider what combinations will be most effective.

It was in this area that Mrs. Hundtoft was most concerned. When Patty wore the print blouse and print jumper together, it proved to be just too much print. She solved the problem wisely and with no waste by making the plain jumper Patty is wearing in the picture to go with the blouse. The print jumper now has become a useful, sleeveless summer dress.

Incidentally, Patty's mother learned another lesson from this experience, too. The print was extremely inexpensive, and the jumper, which has been washed only four times, has faded badly and been hard to iron. Though practically new, it looks old and worn.

Skirts, slacks, jackets and jumpers, which comprise the foundation of so many wardrobes, probably are most versatile if they are made

in plain colors, to be combined with prints or harmonizing plain colors for the blouse or shirt. There are, of course, many exceptions to this. Be wary, however, of using printed cottons, other than corduroy, for jumpers. This rarely looks quite right.

Usually, when plain and figured fabrics are being combined, it is best for the plain one to pick up one of the darker colors in the print, rather than one of the lighter ones. (See illustration.) If a lighter color is selected for the plain fabric, it might match, but the effect would not be nearly as pleasing.

To simplify the task of choosing combinations wisely, many shops and mail order catalogs now are offering figured and plain fabrics which have been designed for use together. Whether you buy these or not, try at least to see all of the fabrics in the combination together before you make final decisions.

And don't rely on your memory of a piece of goods you have left at home.

The Wearer

Now, let's consider the wearer. Does she (or he) have distinct color preferences or limitations? How old is she? What color eyes, hair and skin does she have? What size and shape is she?

If the wearer is a child, she probably will prefer and look best in clear, gay colors, rather than greyed or muted ones. However, some muted plaids and prints are very attractive on children, especially with accents of white or some harmonizing bright color.

The age of the person also is important in relation to the "character" of the fabric. There are a few materials which have come, by tradition, to bear the label, "adults only." Some examples are

(Continued on page 69)



Mrs. Elgin Hundtoft and her daughter, Patty, learned that the plain jumper Patty is wearing looked better with the print blouse than the jumper in the same print, which Mrs. Hundtoft holds.

Photo: John Church

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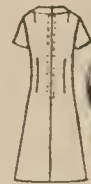
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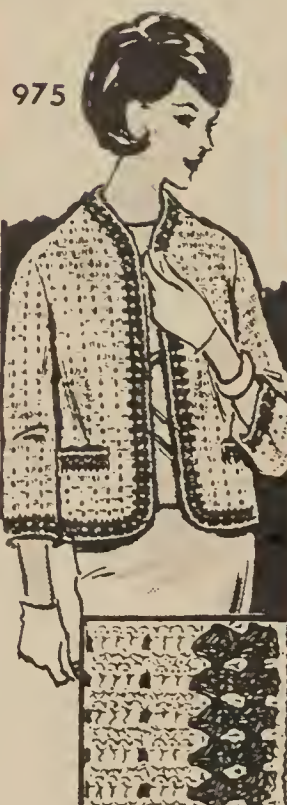
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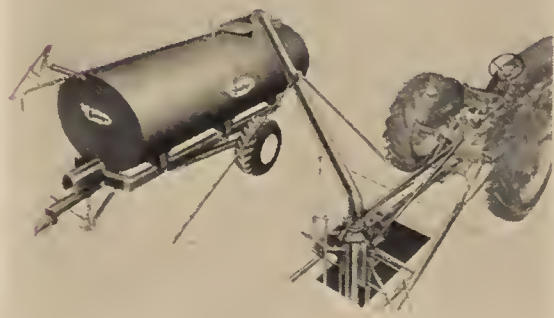
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THREE FREE PATTERNS are printed in our big 1965 Needlecraft Catalog. In addition, more than 200 designs to order - accessories to knit, crochet, sew, quilt, weave, embroider. Send 25¢ for Catalog NOW.

American Agriculturist, April, 1965



ZERO Corporation of Washington, Missouri, now offers a size and type bulk milk cooler . . . with optional labor-saving equipment . . . to fit the needs of any size dairy farm. The dairyman can select from more than a dozen different sizes . . . including 100, 150, 200, 250, and 300 gallon capacities, as well as larger sizes ranging up to 1,500 gallons. There are 200 various combinations with ZERO labor-saving equipment . . . including models with automatic cleaning. Pictured is a tank with 250 gallon capacity.

Results from beef trials at the Ohio Agricultural Experiment Station in Wooster, Ohio, show that slats work well for finishing beef and that they can save considerable bedding and labor costs. The second series of trials is now underway. The only difference over the first tests is that the pens which had no cover at all in the first trial now have a shed roof. Direct sun and heat proved to be problems during the first experiment. The Republic Steel Corporation is cooperating with the Experiment Station in conducting the tests.

The vitamin A and vitamin D content of Beacon milking and fitting rations has recently been increased. Last year's drought in the Northeast has resulted in lowered roughage feeding levels in some cases, and it was believed that the increase in these vitamin levels would insure sufficient intake even with limited feeding of sun-cured hay.

The Federal Land Bank of Springfield broke a 30-year-old mortgage loan record in 1964 with more than \$19 million in new farm mortgages. The Land Bank increased its loan balance to \$125.5 million in 1964.

A new liquid manure handling system was recently introduced by Badger Northland, Inc., Kaukauna, Wisconsin. It is based on Sweden's Sahlstrom System and has been used with much success in Europe for many years. A high-capacity (2500 gallons per minute) pump acts as its own agitator in the storage tank; agitation is required only when the storage tank is being emptied. The pump is P.T.O.-driven, and is mounted on a standard three-point tractor hitch.



BE AN EASTER EGG-SPERT!

Help the Easter bunny get ready for his Easter morning egg hunt this year. Some gaily decorated eggs will make exciting additions to the various kinds of candy ones, and they're lots of fun to do!

Almost anything can be used to decorate colored eggs. Sequins, decals, gummed glittery stars, paper cutouts, colored yarn, and tiny imitation flowers are but a few. And here's an idea for next year. Start a "treasure box" at home and fill it with odd earrings, beads, pieces of braid and ribbon — in fact anything at all that is dainty and pretty. A length of narrow lace, for instance, looks lovely glued around a pale pink egg.

Egg coloring kits make decorating easy, and you'll be proud of the results. One of the popular ones contains six certified food colors, glitter, transfer patterns, a mystic writer, and even an egg dipper. All that's needed besides



is a little glue, some vinegar, and the hard-cooked eggs (not "hard-boiled," for boiling toughens them).

For best results, immerse clean white eggs in cold water, bring them slowly to the boiling point, and simmer gently for about 20 minutes; then, immediately plunge into cold water. Prompt cooling helps prevent the dark inner ring, and the eggs will peel more easily when you're ready to eat them. Touch the eggs as little as possible, for the oil in your skin will make them more resistant to dye.

Air dry and color according to directions, but do not refrigerate. The makers of Rit Easter Egg Dyes assure us that eggs may be safely kept at room temperature up to three days before eating. After refrigeration, they may be kept up to ten days and used in creamed or casserole dishes, sandwich fillings, or as deviled eggs to serve with cold cuts.

Finesse with fabrics.....

(Continued from page 66)

slinky velvets, satin and net. At the opposite end of the scale are the extremely juvenile prints found on some percales. These are very difficult to use successfully, except in nightclothes, because they tend to appear overly sweet.

Figures and texture should also be related to the size and shape of the wearer. Large patterns "swamp" children and petite women; similarly, large-boned or broad figures may be rendered more awkward by very tiny or dainty prints. Shiny textures call attention to curves and bulges, and very thick ones may add bulk which can enhance a thin figure or detract from a heavy one.

Developing finesse or "taste" in selecting fabrics for sewing is a thoughtful process, and comes about only through practice. But it is well worth the effort in terms of time, money, and satisfaction. In the second article in this series, we will discuss some of the specific techniques of choosing and using fabrics wisely.

SEND FOR THIS!

"Farm & Home Improvement Idea Book" contains more than 50 suggestions for better working conditions and home comforts. All are illustrated, and construction details for many are available in listed free plans from Masonite Corporation.

For a free copy of the 12-page brochure, write the *Farm Service Bureau, Box B, Chicago, Ill. 60690.*

DO YOU HAVE . . .

A recipe for Lemon Snaps (with wrinkled tops, similar to the kind you buy in a bakery)? Mrs. Edmund Winkler, 5 Primrose Ave., Floral Park, N. Y., would like this recipe.

A recipe for "Almond Bark" candy? Mrs. Geneva Purdy, Poland, Maine, says she bought some at a fair, but hasn't seen it any other place or been able to find a recipe. There were three different colors, and she liked the white candy best.

Thanks!

Mrs. Leonard Dean, Redfield, New York, wants to thank all those who wrote in response to her request for a Blackberry Pudding recipe in our January "Do You Have . . ." column. On February 12, Mrs. Dean had received 103 letters, and they were still coming!



LIKE A BRIDE

by Queena D. Miller

Veils of mist and storm may hide
Winter's saddened face;
But April comes veiled like a bride,
In cherry blossom lace.



TALL, DARK & WHOLESOME!

WHOLE WHEAT BRAN LOAF

1 cup water • $\frac{3}{4}$ cup milk
1 cup all-bran • 3 tablespoons sugar
4 teaspoons salt
6 tablespoons ($\frac{3}{4}$ stick) Fleischmann's Margarine
 $\frac{1}{2}$ cup dark molasses
 $\frac{1}{2}$ cup warm water (105°-115°F.)
2 packages Fleischmann's Active Dry Yeast
3 cups unsifted whole wheat flour
 $2\frac{3}{4}$ cups unsifted white flour (about)

Combine 1 cup water and milk; bring to a boil. Stir in all-bran, sugar, salt, Fleischmann's Margarine and molasses; cool to lukewarm. Measure warm water into large warm bowl. Sprinkle in Fleischmann's Yeast; stir until dissolved. Add lukewarm bran mixture and whole wheat flour; beat until smooth.

Stir in enough white flour to make a soft dough. Turn onto lightly floured board and knead until smooth and elastic, about 10 minutes (dough will be slightly sticky). Place in greased bowl, turning to grease top of dough. Cover; let rise in warm place, free from draft, until doubled in bulk, about 1 hour.

Punch down. Turn out onto lightly floured board; divide in half; shape each half into a loaf. Place in greased $8\frac{3}{4}$ x 5 x 3-inch loaf pans. Cover; let rise in warm place, free from draft, until doubled in bulk, about 1 hour. Bake in hot oven (400°F.) 30 to 35 minutes, or until done. Makes 2 loaves.

You can trust Fleischmann's high, high rising yeast to lift your bakings (and your ego!) up, up, UP. It's extra active!

Fleischmann's Yeast

ANOTHER FINE PRODUCT OF STANDARD BRANDS





ED EASTMAN'S PAGE

HE WAS A PIONEER

Sometimes one picture will say more than a thousand words. For example, take a good look at the picture on this page showing the ultra modern way of brooding baby chicks. Then compare it with Old Biddy with her 8 or 10 chicks in an old-fashioned A-coop.

It has really not been so very long since most chicks were hatched and brooded by the mother hen. Yet look at what has transpired in the poultry industry in those comparatively short years!

One day near the close of the last century a green freshman went to Isaac Phillips Roberts, the first effective Dean of the New York State College of Agriculture, and asked for permission to build a henhouse. At first Roberts refused, but the boy was so enthusiastic and insistent that he finally told him that, if he would use old lumber from a Cornell barn that was being torn down and would build the henhouse himself, he could go ahead. The Dean also warned the boy that the building and the poultry must not offend either the eye or the sense of smell.

A few days later, Roberts thought he would see how the boy was getting along. After watching him for a few moments, Dean Roberts caught some of the student's enthusiasm, so he took off his coat and helped build the henhouse.

That was the beginning of the poultry department in the College of Agriculture, and the student was the late James Rice, the pioneer who — more than anyone else — laid the foundations of the scientific poultry industry in the United States and in the world.

FOR SUMMER FEEDING

There used to be a joke told in the dairy country about cows pasturing on steep side hills. The cows were supposed to have their legs shorter on one side than on the other in order to keep their balance. When I remember some of the side hill pastures I have been on, I can almost believe that story.

In every dairy county now there are hundreds of cows producing 10,000 lbs. or more of milk annually, but not so long ago the average production was under 4,000 lbs.

One of the reasons for this tremendous increase has been improved pastures, or maybe no pastures at all.

Until comparatively recently almost all pastures in the hill dairy

country were poor. Every thousand-pound animal removed from the farm carries away 16 lbs. of phosphorus, and corresponding quantities of lime, nitrogen, and potash. Every quart of milk sold from the farm represents losses of these same elements. Part of these losses comes from the pastures. Multiply them by all the generations of cattle that the pastures have fed since the land was cleared; add to these the even greater losses in pasture fertility from erosion; remember also that



seldom was any fertilizer returned to the pasture, and then you will understand why the pastures are poor. The wonder is that they are not worse.

However, in all the rapidly-changing times, the pasture situation has changed also. Farmers have realized that cows producing 10,000 lbs. of milk or better just can't do it on the old-time pastures. Many are improving their pastures; others do not depend on them at all but use barn feeding the year around.

Do your 1965 plans include a summer feeding program?

BEFORE THE GREAT AWAKENING

I am sure that you — when you have visited old cemeteries — have been struck by the fact that so many of our ancestors died young. This indicates, I think, that the "good old times" were often bad times. Men and women were tired, worn out and old by the time they reached middle age. Memory has a nice trick of glossing over our troubles and sorrows of the past and remembering only the things that made for happiness.

Still, I like to write and think about the ways people lived, worked, and played before the Great Awakening, mostly since World War I, which brought more changes than have occurred in any other similar length of time in our history.

Judging by the great number of letters that I get about my book — JOURNEY TO DAY BEFORE YESTERDAY — it seems that you

also like to read about the "good old times," even though you would not like to return to them. So enthusiastic are these letters — many of them telling me how the book helped them to "remember when" and to relive old days — that they give me confidence to believe that you would love this book, if you have not already read it, or you might want to give it as a birthday gift to a friend.

To get a postpaid copy, just send a check or money order for \$5.95 to American Agriculturist, Dept. Book, Savings Bank Building, Ithaca, N. Y.

DO YOU CARE?

Governor Rockefeller has promised to sign a Bill raising the drinking age in New York State from 18 to 21.

The New York State Council of Churches, the Grange, other farm organizations, and many individuals have tried for years to get such a Bill passed, but the powerful hotel and saloon organizations, and others who profit from the liquor traffic, have so far pressured the Legislature to defeat efforts to get such a Bill.

It doesn't seem that any real arguments are needed to support this Bill. Neighboring states around New York have been pleading with our State government for years to raise the drinking age to correspond with what it is in other states. There are many statistics showing death and injury of young people on the highway, driving from Connecticut, and particularly New Jersey, over the New York State line in order to buy liquor.

Living in a city with two colleges, Cornell and Ithaca College, I see every day what liquor does to young people, especially to those under 21.

If the Legislature is still in session when you read this, write — or better still — wire your State Assemblyman and Senator expressing your emphatic opinion in favor of raising the drinking age from 18 to 21.

It comes right down to — how much do you really care?



Spring is really here! See article entitled, HE WAS A PIONEER, on this page.

American Agriculturist, April, 1965



APRIL

"The east wind slept last night (oh be its rest
As deep as death and long!)
and with the morn
The soft fresh breath of April
from the west
Came blithely whispering,
'Spring at last is born.'"

S. J. Stone

EASTMAN'S CHESTNUT

One of the best governors that New York State ever had was Alfred E. Smith. It was my high privilege to know him well and to work with him on some projects that involved the welfare of rural people. Although reared on the sidewalks of New York, Al was always particularly sympathetic and understanding of rural problems.

To illustrate, one day I made some comment about his interest in the educational welfare of rural children and he answered, in the gruff sort of way that he had: "Why not? The cities eventually get your surplus boys and girls, so we should be just as concerned as you are that they have every educational opportunity."

The New York Daily News tells a good story about Al. He was always interested to know firsthand what went on in the State, so one day on his way to Albany he stopped off at Sing Sing Prison and the Warden took him through the prison. Finally, they came to where the prisoners were all assembled, and the Warden took Al completely off guard by asking him to make a little speech to the men.

Somewhat embarrassed, Al said, "Fellow Citizens!"

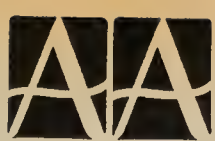
A little laugh went over the crowd, for of course they were not citizens.

Then Al said: "Fellow Convicts!" That didn't help matters a bit — and the crowd really began to laugh.

Now thoroughly mixed up, Al made his third attempt:

"It's good to see all of you here today."

At this, the whole crowd burst into laughter.



SERVICE BUREAU



Listen, dear readers, and you shall hear
Of the most used schemes of this past year.
Again it is April in sixty-five;
Once more your Service Bureau will strive
To recall the hoaxes you should fear.
(Apologies to Longfellow)

WARM WEATHER HOAXES

With the coming of April showers and the first spring blossoms, it is time once more to warn against the itinerant salesmen, who travel the countryside like gypsies and offer to do all kinds of home repair and improvement jobs. According to reports received by the National Better Business Bureau, home improvement swindles are the No. 1 spring gyp, with losses from this type of activity topping \$500 million a year.

Often the itinerant pitchman says that he has been working in the neighborhood and, for that reason, can do a job for you at less than his usual rate. He may tell you your chimney needs repairing, your roof needs a paint job, the driveway needs resurfacing, or that your house needs paint or siding. He may claim to be a "tree surgeon" or a termite exterminator. He may offer to install a lightning protection system at low cost.

Your Service Bureau has received complaints about all of these activities and more.

Some Examples

One of our readers, a 70-year-old lady, was victimized for chimney repair and waterproofing her basement, to the tune of \$1500.00 in cash. This practically depleted her savings—for a job worth much less than one-half this amount.

A couple in their 80's were persuaded by one of these door-to-door salesmen to let him paint part of their house for a price per gallon of paint. In two hours, he claimed to have spread 80 gallons over a small area, and he charged \$400.00! The old gentleman paid him and told him to stop work.

A self-styled expert may tell you your home and property will be destroyed by termites unless it is taken care of immediately. You probably have no termites, but, if you do, this phony expert knows nothing about control or extermination.

Last spring, just as the April issue reached our subscribers, we were warned the "gypsies" had arrived in Central New York. The United Lightning Protection Association advised us that a sizable number of incomplete lightning rod systems had been installed by these "gypsy" operators; that a large number of the installations had been inspected by ULPA representatives and were not in accordance with the code of Underwriters' Laboratories or the National Fire Protection Association.

One recent spring a subscriber wrote us: "I am 64 and working

just temporarily for 70¢ an hour on a berry farm. My mother is 91 and drawing public assistance. Yesterday afternoon, while I was working, some men in a light truck stopped and told my mother they had come to paint the roof. Mother told them they would have to see me first, but they said they could not hunt me up and declared they were going to paint the roof anyway. They sprayed a black mixture of roof paint, thinned with kerosene or fuel oil, on about 300 square feet of roof and then demanded my mother pay them \$60.00, which she did. A local man, who has done roofing work for about 15 years, told me he would have painted both sides by hand with a brush for \$25.00!"

These itinerant workers have been described as having dark complexions, often claiming to be Indians, frequently driving pickup trucks with out-of-state licenses.

These transients, who move in seasonally and move on, should not be confused with salesmen or workmen who represent reputable companies and contractors, and of whom there are many.

Some Pointers

The Service Bureau, along with the National Better Business Bureau, advises homeowners to keep the following points in mind during the coming spring months:

— Beware the man who rings the doorbell and says "he just happens to be in the neighborhood" with his gardening supplies or home repair equipment.

— Check "amazing" bargain offers before any money is spent or any investment is made.

— Secure price quotations from firms of established reputation on all landscaping improvements or home repairs.

— Read and understand all written agreements and contracts before signing.

— Seek information from local Better Business Bureaus, Chambers of Commerce, or your Service Bureau.

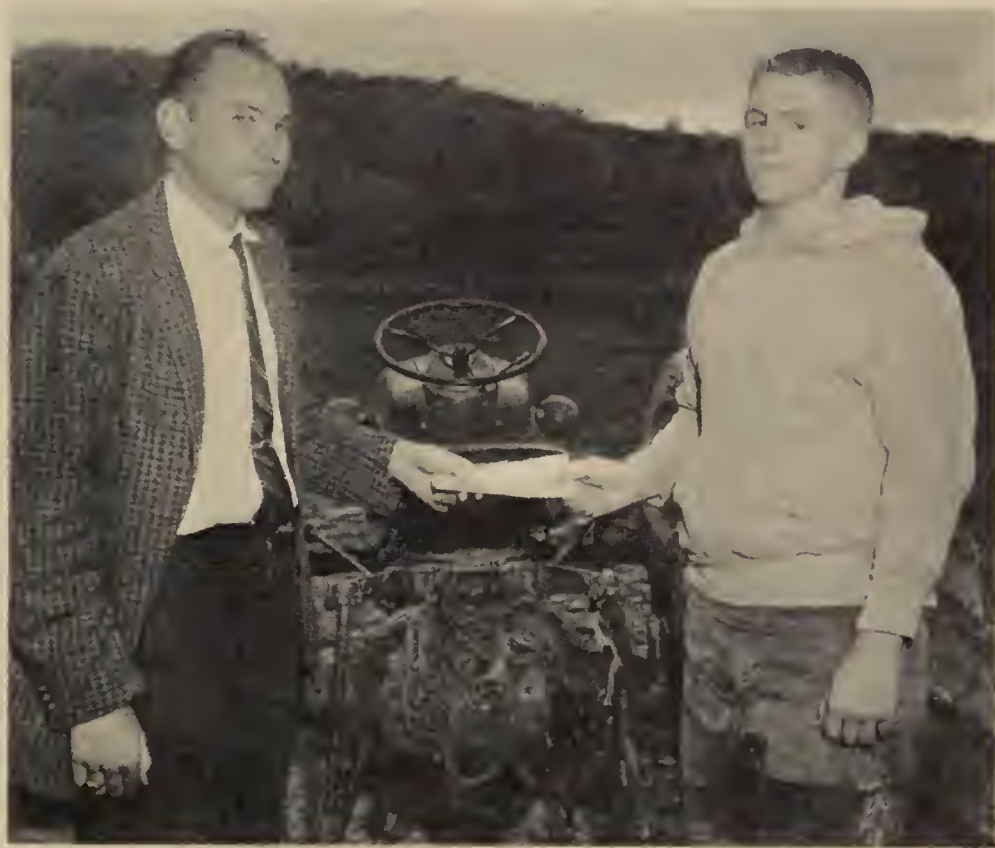
CAN YOU HELP?

If you have any old, discarded Bibles that can be spared, regardless of their age, condition or version, please send to: T. S. White's World Wide Bible Gift Ministry, Bibles for the Needy, 1719 Buckner St., Shreveport, Louisiana.

* * *

Mrs. Iva F. Tompkins, Prattsville, N.Y., would like the words to an old song, "Oh, that we two are Maying."

Teenagers Need Protection Too



Fifteen year old Terry Smith of Rexville, N. Y. received \$1,144.64 from local agent Ray McGuirl. Benefits were paid from two policies covering medical expenses and total disability. Terry broke his hip, injured his chest and suffered cuts and bruises when the tractor he was driving tipped over. Only eight months before this serious accident, the Smiths decided to take out North American protection on their son.

OTHER BENEFITS PAID

Gordon Hill, Windsor, N.Y.	\$ 135.70	Beatrice Austin, Middletown, N.Y.	305.96
Cutting trees—cut wrist		Fell—broke ankle	
Mike Keller, Conewango Valley, N.Y.	157.14	LaVerne L. Farewell, Medina, N.Y.	225.00
Knocked down by cow—inj. knees		Fell—broke elbow	
James Sutter, So. Dayton, N.Y.	127.14	Charles G. Marsden, Mexico, N.Y.	439.52
Kicked by cow—inj. back		Thrown against steering wheel—internal inj.	
Frank Whipple, Genoa, N.Y.	420.00	Stephen Swota, Richfield Springs, N.Y.	270.97
Auto accident—multiple injuries		Hit by chip of cement—injured eye	
John Turk, Frewsburg, N.Y.	1410.00	Charles S. Johnson, Heuvelton, N.Y.	460.31
Kicked by cow—fractured leg		Caught fingers between cable & rollers	
John M. Abbey, Sinclairville, N.Y.	104.88	Frances Goodison, Heuvelton, N.Y.	265.70
Hit by chain saw—cut face		Slipped and fell—broke shoulder	
Frank C. Mahler, Horseheads, N.Y.	488.78	Harry Rubin, Cobleskill, N.Y.	205.71
Slipped lifting barrel—injured back		Slipped & fell—inj. leg	
Frederick Savory, Greene, N.Y.	1624.53	George Burdick, Jr., Rexville, N.Y.	565.21
Cow rolled on leg—broke left ankle		Stepped on by cow—fract. leg	
Lewis Russell, Smyrna, N.Y.	167.00	Howard Cady, Troupsburg, N.Y.	276.57
Cut hand on table saw		Stepped on by farm animal—inj. foot	
John Stevens, Cortland, N.Y.	591.70	Bernard Hanrahan, Rathbone, N.Y.	137.20
Oxygen hose blew up—severe burns		Truck accident—broke ribs	
Walter J. Kimball, Cortland, N.Y.	485.97	Vivian Hulse, Calverton, L.I., N.Y.	107.14
Oxygen hose blew up—severe burns		Burned on stove—injured thumb	
David C. Banuat, Bovina Center, N.Y.	175.00	Karl Klossner, Jr., Owego, N.Y.	533.72
Hit by piece of steel—head inj.		Auto accident—cut scalp, concussion	
Frank O. Dean, Unadilla, N.Y.	235.71	Marian G. Freeman, Newfield, N.Y.	460.42
Caught in gears—inj. hand & forearm		Fell from ladder—broke leg	
Charles F. Muscato, Brant, N.Y.	184.29	Nathan J. Deyoe, Argyle, N.Y.	209.22
Ran over by tractor—injured foot		Hit by cow—injured back	
Julia Joyce, Johnstown, N.Y.	709.71	Leon Carter, North Rose, N.Y.	180.00
Slipped and fell—broke thigh bone		Fell off truck—inj. back	
Elsie Miller, Bergen, N.Y.	267.00	Arlean P. Bean, Gainesville, N.Y.	1477.84
Turned ankle and fell—broke leg		Auto acc.—broke ankle, arm, ribs, cuts	
Jack Daley, Dolgeville, N.Y.	968.74	Daniel R. Stephens, Castile, N.Y.	171.42
Knocked down by car—injured back		Hit by horse—broke ankle	
Shirley M. Guido, Frankfort, N.Y.	770.74	Charles H. Burton, Dundee, N.Y.	1190.18
Auto accident—inj. back, neck and chest		Hit with drill press—inj. eye	
John O'Neil, West Winfield, N.Y.	350.00	Lena H. Conley, Penn Yan, N.Y.	478.33
Hit by cow—broke hip		Hit by car—injured knee	
Henry N. Cramer, Watertown, N.Y.	142.86	Evelyn R. Fillmore, Westfield, Pa.	148.56
Stepped on by cow—broke toe		Chain saw—cut finger	
Sylvia H. Foster, Castorland, N.Y.	442.08	Ignatius Kwiatkowski, Wattsburg, N.Y.	116.43
Slipped and fell—broken leg		Slipped & fell—broke shoulder	
Martin Beyer, Lowville, N.Y.	777.17	Sarah Kymmer, Sussex, N.J.	433.86
Caught in machine—amputation finger, cut thumb		Auto acc.—whiplash injury	
Wilfred Hunt, New Woodstock, N.Y.	1089.43	Emily W. Shivers, Bordentown, N.J.	1164.28
Mauled by bull—broke ribs, internal inj.		Tripped over rug—broke leg	
Julia A. Martin, W. Edmeston, N.Y.	109.29	Joseph Englestein, Jackson, N.J.	550.00
Hit by cow—inj. eye		Auto acc.—injured back, knee	
Herbert Kruspe, Rochester, N.Y.	754.71	Mabel Simpkins, Salem, N.J.	317.86
Slipped pushing car—internal injuries		Auto—severe bruises and dislocation	
John Knapik, Amsterdam, N.Y.	132.85	Thomas Pheasant, Morganville, N.J.	364.50
Caught fingers in chain—smashed fingers		Playing ball—broke arm	
Richard Bartlett, Randall, N.Y.	189.16	Ralph J. King, Shelburne Falls, Mass. ...	302.40
Hot water spilled—burned leg		Struck with axe—severe cut foot	
Harold Haddock, Salisbury Center, N.Y.	300.00	Clarence Skinner, Weeks Mills, Maine ...	197.14
Pedestrian—fractured thigh		Slipped off tractor—injured back	
Zella M. Eaton, Vernon Center, N.Y.	648.12	Alcide Fagnant, Pike, N.H.	168.00
Caught in wringer—broke thumb, infection		Run over by tractor—broke ankle	
Webb B. Greenfield, Skaneateles, N.Y.	137.14	Amie Blanchard, Bethel, Vt.	110.95
Caught in grain dryer—inj. hand & tendons		Slipped—bruise elbow & leg	
Wilfred E. Miller, Holcomb, N.Y.	723.15	Glen Watson, Groton, Vt.	144.28
Automobile accident—concussion		Hit by pole—cut leg	
Stanley F. Bogdanski, Florida, N.Y.	357.07	Madine B. Cahoon, E. Burke, Vt.	102.14
Fell—broke wrist, ribs, inj. shoulder		Slipped & fell—broke ankle	
Nicholas Affuso, Newburgh, N.Y.	317.50	Elbridge Pierce, Franklin, Vt.	309.00
Fell off ladder—broke wrist		Auto acc.—broke collarbone, ribs, cuts	

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No plant food element can substitute for another. *All* elements must be returned to the soil. Replacing just a few of them won't do the job. More profit-minded farmers are now relying on BONANZA than ever before. The

reason? BONANZA *produces* for them! And it will for you, too. See your Royster dealer for BONANZA . . . the best crop insurance and profit insurance you can buy. BONANZA . . . the fertilizer that brings science down to earth.

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American **A** *griculturist* and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER

MAY 1965





Ford's no-pitman drive is rugged, simple, durable. It's mounted solidly on the cutter-bar for high-speed work with minimum vibration.



Synchronized dual feed forks keep hay moving—no hesitation, no dead spots, and no shear pins. Uniform hay charges provide firm, neat bales.



Finish Fast... Ford **Quality** HAY MAKERS

SPEED to outwork the weather starts with Ford's 515 mower that cuts clean, as fast as 7 acres per hour—smoothly, quietly, easily. The 515's ability to keep going comes from its high-speed pitmanless drive, its sturdy, tubular frame, its special spring-trip breakaway.

For once-over work, tandem-hitch a Ford 510 conditioner behind the 515. You'll cut, condition, cure your hay 50 per cent faster. Or team the conditioner with the Ford 501—the nation's Number One choice in a quick-mounted, pitman-drive mower.

CAPACITY to bale up to 14 tons per hour, that's the Ford 530 baler. Extra pickup width, non-stop feeding, and fast plunger speed keep bale chamber uniformly full for well-shaped bales. Dependability comes from *three* drive-line clutches protecting baler and tractor. Ford knotters tie bales accurately, securely. Here's capacity to bale more tons faster, easier. *Performance news travels fast!* No wonder more farmers than ever bought Ford balers last year. See for yourself the difference in Ford's quality hay makers. Find out how Ford can help you finish fast, ahead of the weather.

HURRY... buy a Ford baler before May 31, 1965, and get your **FREE** supply of twine or wire, enough to tie up to 2500 bales. See your participating Ford tractor dealer now.



The Ford 503 rake (shown) has rotary stripper action to fan hay off teeth on a leaf-saving cushion of air. Builds fluffy, quick-curing windrows. For ground-drive raking, see the Ford 508.



Chop low-moisture silage, green feed or row crops with the amazing Ford 612 forage harvester. Converts in minutes from direct cut to pickup or row crop jobs.

TRACTORS
PRODUCTS OF  MOTOR COMPANY
EQUIPMENT

FORD



RIDE WALT DISNEY'S MAGIC SKYWAY AT THE FORD MOTOR COMPANY PAVILION, NEW YORK WORLD'S FAIR



American Agriculturist
and the
RURAL NEW YORKER
FOR THE NORTHEAST FARMER

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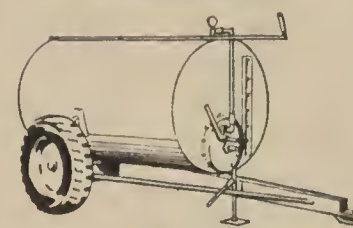
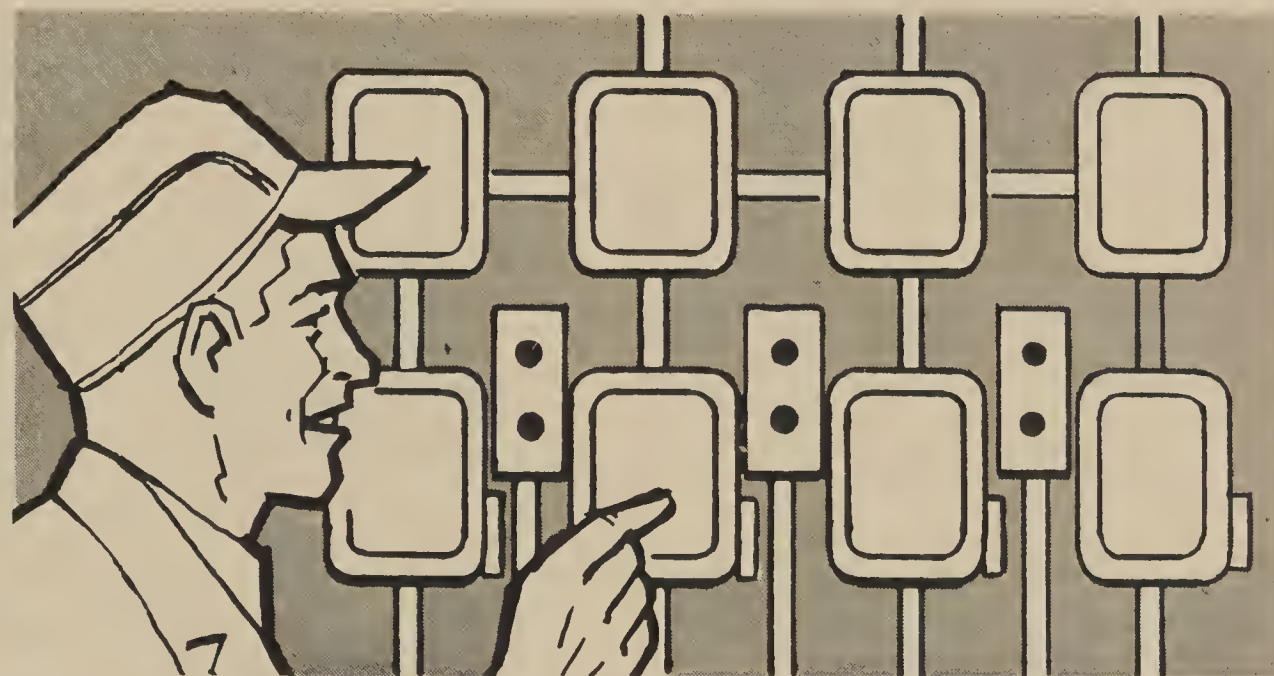
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American Agriculturist, May, 1965

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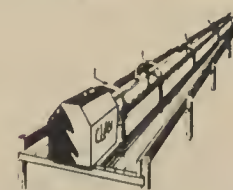
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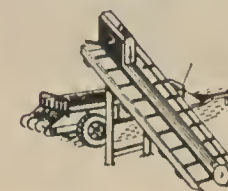
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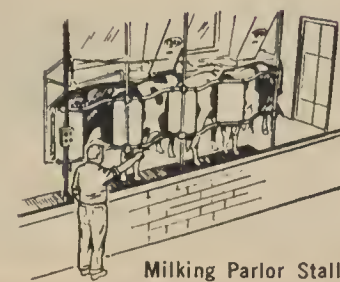
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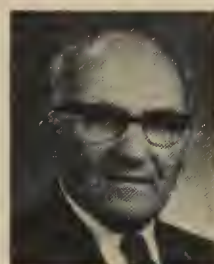
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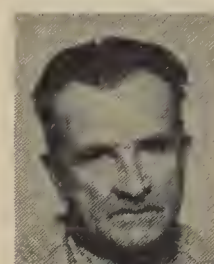
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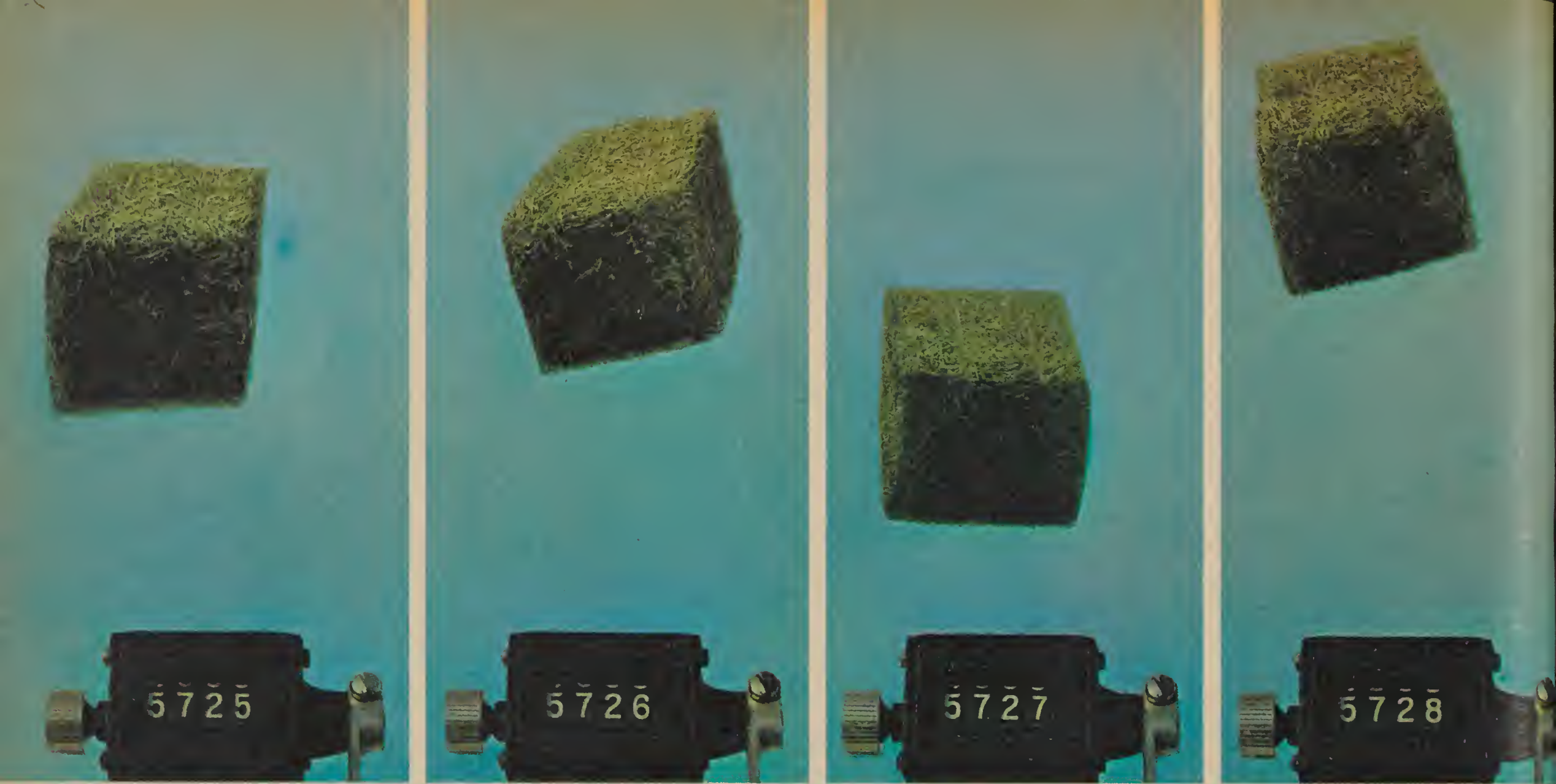


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George is dedicated to his profession of meeting the feeding and management needs of farmers and feeders. He has taken part in every training course offered by Purina and he keeps abreast of the very latest in feeding and management know-how which flows to him continuously from Purina's research farms and laboratories.

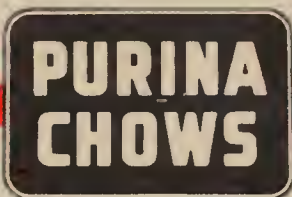
Having grown up on a dairy farm and attended an agricultural college, George is "Mr. Purina" to the farm people with whom he works in Otsego, Delaware, and Chenango counties in southeastern New York. He has earned recognition as a key man in the agricultural development of his area. His headquarters is in Bainbridge, New York.

Yes, Purina is proud of George Henry as well as the man in the Checkerboard tie in your part of the state. His job is building farm wealth in a community. He works hard and pays a big price in sincere, personal effort to earn the personal satisfaction gained from helping people grow and prosper through Purina feeding and management programs.



Typical of the agricultural leadership which comes to you through your man in the Checkerboard tie is Purina's Calf Starting Twins . . . Purina Nursing Chow and Calf Startena . . . just what dairy calves need to more than triple their birth weight in just 4 months! Your local Purina dealer or the man in the Checkerboard tie is the man to see on this proven calf raising program.

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EDITORIALS

by GORDON CONKLIN

TO ARMS! TO ARMS!

Ever since the founding of our Republic, arguments have raged over the legislative control of firearms in the possession of our citizens. After the assassination of the late President Kennedy, the clamor for more stringent regulation of guns of all types reached especially large proportions. Legislators in many northeastern states, particularly those from large cities, introduce every year into the various state legislatures proposals that would require every owner of a firearm within the state to obtain a permit for each and every weapon. Presumably this would make it more difficult to own guns, and would open the way for a tax on such ownership.

The supporters of such proposals argue that tighter regulations would help law enforcement. However, they neglect to mention the fact of life that criminals can always obtain weapons illegally, and then use them to intimidate honest citizens who may be unarmed because they complied with the law! Hardly a week passes without a newspaper report of a person who has been arrested because he attempted to protect himself with a hand gun for which he had no permit... taxi drivers in large cities seem to be the major "offenders" in attempting to protect their lives and their wallets from vicious thugs... usually armed, by the way, with firearms or knives.

I question whether potential assassins... or holdup men... would be deterred in any way by more stringent regulations on the sale of firearms. If a man's mental and moral condition is such that he would attempt such an act, then he would obviously not be stopped by any law... he would steal or purchase illegally a weapon for the purpose. In fact, most weapons used by criminals are stolen.

It is against the law to steal automobiles, but many criminals help themselves to whatever vehicle is handy when they decide to go on a trail of crime. Almost every automobile in the land is registered, and the red tape surrounding the ownership of automobiles is endless, but still they are stolen in considerable numbers. Incidentally, the automobile is a very lethal "weapon" indeed in our midst... being responsible for around 40,000 deaths annually in our country.

The Second Amendment to the Constitution supposedly guarantees the rights of citizens to keep and bear arms, but the meaning of the Amendment is subject to the interpretation of the Supreme Court. In the light of the recent reapportionment decision by the Court, it should appear obvious that this judicial body can be very activist indeed when it comes to rewriting the Constitution. Therefore, I doubt if the Second Amendment really provides the protection which some people believe it does against stringent gun legislation.

Looking back down the years, I can remember an epic battle when a maddened bull that had been terrorizing our farm community was brought down at point-blank range by my father with a 12-gauge shotgun. I can

remember the wild dogs and the possibly-rabid foxes, and the endless numbers of predators and animals doing damage to crops that fell before the blazing muzzles of rifles and shotguns. For dealing with major dangers, and with depredations of lesser importance, rural families need firearms!

Of course, there are thousands of people who find relaxation and challenge in hunting. Since hunting is really a luxury rather than a necessity in our well-fed country, the firearm case on behalf of hunters is almost entirely in terms of the very large contribution to the economy made by expenditures to pursue the sport... rather than in terms of dire need.

Make no mistake, a gun is for killing... and it is therefore potentially both dangerous and protective. There are those who decry the chapter in our national history when the Colt and the Winchester helped tame the West. I've always been glad, though, that the law-abiding citizens of that vast and violent land were as well armed as the vicious men who tried to terrorize it.

England had a Firearms Act in the 30's and, when Hitler poised for invasion in 1940, John Bull desperately asked the "Wild West" Americans for small arms of all kinds for Home Guard and police. The Act had curtailed firearm ownership for years; production... as well as firearm proficiency among the citizenry... had waned to a low ebb.

When all the arguments pro and con have been made, I remain convinced that people outside large metropolitan areas should retain their right to the possession of firearms without the requirement that they obtain a permit for rifles and shotguns. If law enforcement agencies in large cities insist upon stringent firearm regulations, then they should experiment on a city-wide basis rather than seeking to impose sweeping laws across a whole state or nation.

RED AND UNDERFED

There are certain principles of human behavior that remain constant across time and geographical boundaries. One of them concerns incentives to produce... the economic climate in which a man will do his level best. Let's look long and hard at this one, for its application... or lack of it... shapes the course of history.

Russia, like the United States, is still in the midst of a persistent farm problem... only theirs is one of shortage while ours is surplus. Russia has more cropland than the United States and employs seven times as many people on the land. Yet, Russia had to buy 10 million metric tons of wheat last year, and another 250,000 metric tons this year.

The Red stumbling block is as old as mankind: a man will not produce at his best without the incentive of being rewarded according to his effort. Working for the state, he goofs off and shrugs his shoulders; workers and farm animals alike suffer from a disease called "collectivitis." Besides, directives from Moscow call the shots, and the men best

acquainted with local conditions must do as Big Brother says whether it makes sense or not.

The workers on the collective farms are allowed tiny plots of their own, though, from which they can use or sell what is produced. These plots make up only three percent of the Soviet Union's total tillable acres, but produce 47 percent of the nation's meat, 49 percent of the milk, 82 percent of the eggs, and 63 percent of the potatoes. When the Russian works for himself, he can produce!

Soviet agriculture is shackled with these two enormous weights... lack of individual incentive and centralized control that stifles initiative. Even the Russian leaders are obliquely admitting this, but the stiff dose of free enterprise needed to correct the situation is unbearable because it questions the very foundations of Communism.

Ironically, we in the United States are using to some degree those same two shackles to slow our agriculture down. Individual incentive is reduced by public programs intended to reward people whether or not productive effort is expended; centralized control becomes more and more acceptable to the electorate intent on getting back as much of its tax dollar as possible.

The Russians have tested and perfected the ways to attain inefficiencies in agriculture. Never fear, though, we Americans can catch up with them at this game if we try hard enough!

PEOPLE FOR SALE

A woman slips on her neighbor's steps, falls... and sues for \$50,000.

A teenager being pursued by police for speeding wraps himself and his car around a tree at one hundred miles per hour... his parents sue the village for \$100,000.

A boy drowns in a city pool after diving in the deep end, even though his doctor had warned him about a heart condition that made swimming dangerous... another \$100,000 lawsuit is underway against the city. Or rather underway against neighbors who live up and down the streets, for the city government creates no wealth, but merely uses that created by the taxpayers who support it.

Amidst the rising tide of such lawsuits are we aware of the fact that insurance companies do not create wealth either? Or have we reached the point where we are eager to reach into the pockets of our neighbors and force them to pay us for our misfortunes, whether or not negligence is involved? Make no mistake, all of us pay... in the obvious way through higher insurance rates and added taxes, and in the less obvious fact that 4-H leaders, scout leaders, teachers, and other community-minded folks are reluctant to accept responsibility for situations where they might find themselves in court because someone was injured.

When you next serve on a jury, do some hard thinking before allowing indiscriminate cashing in on some circumstances beyond anyone's control.

All of which reminds me of the Scotsman who drank a hot toddy with his employer on a special occasion. Feeling an unusual burst of generosity, the employer gave Angus another belt of warmed-up lighting in a flask to take home with him. Angus held the flask and its precious contents under the belt of his kilts to help keep it warm, and started for home.

Somehow, though, the heather dew he had already consumed (plus the darkness) teamed up to confuse Angus; he suddenly found himself at the bottom of a steep bank, with the sensation of something warm stealing down his leg.

"Oh Lord," he said fervently, "I hope it's blood!"

It seems as though the hope for blood has become a widespread wish.

American Agriculturist, May, 1965



Offset wheels on New Holland rakes put more hay in every windrow!

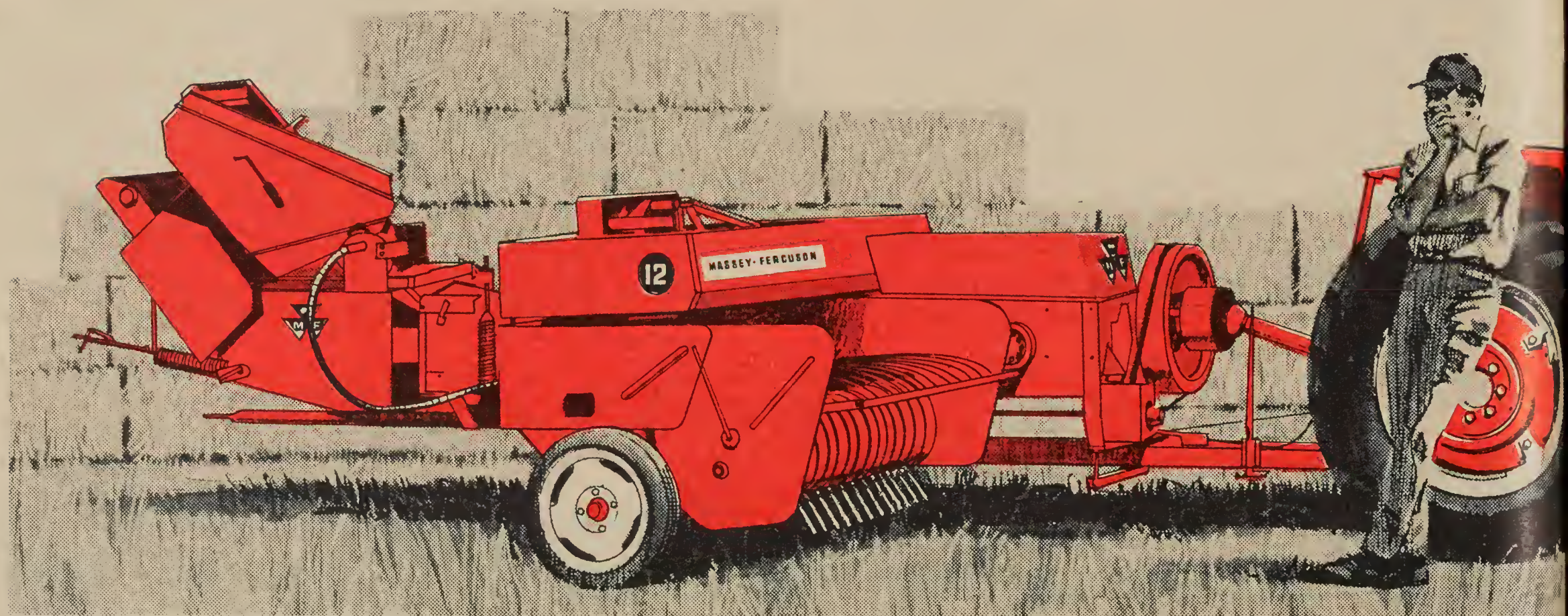


New Holland's offset wheels are the key to bigger, cleaner windrows. That's because *both* wheels follow closely behind the basket, letting it dip into low spots, rise over bumps. You end up with less field loss because *all* the hay goes into the windrow. And tines last a lot longer, too! ■ Other features: gentle Rolabar™ action saves valuable leaves... optional rubber-mounted tines last up to seven times longer than steel tines. Three models to choose from. ■ See your nearby New Holland dealer soon! New Holland Machine Company Division of Sperry Rand Corporation.

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The Question Box

... Send us your questions — we'll get the answers

What is your opinion about granular and liquid fertilizers? We seem to have had little benefit from our granular fertilizer this year.

During a dry growing season it is easy to dig into soil and find the location in the soil where fertilizer had been banded.

We see the white and gray-brown particles in the soil, suggesting that the fertilizer is still lying unused where it was placed by the planting equipment. In all probability the nutrients contained in the fertilizer particles did move out of the band and were utilized by growing roots of plants that came in contact with these dissolved nutrients. It takes only a minimum of soil moisture to dissolve the plant nutrients in the fertilizer band, causing them to move out of the band and be available to plant roots. The materials left behind are inert materials which are not quite as soluble as the fertilizer nutrients. Therefore, these inert materials look very conspicuous, but have no plant food value.

If little or no benefit was derived from the granular fertilizers, in all probability it was some other factor that caused this lack of response. For example, the very low rainfall undoubtedly had effect on the growth of the plants since very

little soil moisture was available during this past growing season.

Extensive field tests regarding the use of liquid fertilizers has been conducted by Cornell University as well as other nearby states. The conclusions reached have been that liquid fertilizers are as effective as dry fertilizers when used as a soil application. We cannot recommend that one material is superior over the other.

It should be pointed out, however, that liquid fertilizers when used as a foliar spray, are not recommended. The use of foliar sprays requires many trips across the field to supply the total amount of nutrients needed by growing crops. This causes extra expense and time on the part of the farm operator. Non-pressure liquid fertilizers have found a place on many farms.

One word of precaution on liquid fertilizers is that it is difficult to store the materials from one season to the next in ordinary steel storage containers. Rusting of the containers is often a problem. In addition, salting out at low temperatures can occur and it is difficult to bring these crystals back into solution.

To conclude, it is my opinion that crops did not respond because

of a lack of rainfall and not due to the type of fertilizer material being used. It should be remembered that research studies here, as well as in many other states, have shown that the important consideration is the price per pound of plant nutrient. Many good fertilizer materials are available; the deciding factor between liquid and dry fertilizers is the cost per pound of plant nutrient to you. — *Prof. T. W. Scott, Cornell University*

I have a small flock of white Chinese geese. If their eggs are kept cool, how long will they be good? Is there a market for them anywhere in New York State?

To my knowledge there is no regular channel or outlet for the sale of goose eggs such as there is with chicken eggs in New York State. Therefore, the sale or distribution of goose eggs is normally restricted to the local area.

Eggs kept in a cool, humid place will remain fresh for three to four weeks or longer. Treat them just as you would chicken eggs.

Fertile eggs to be used for hatching purposes should be kept at refrigerator temperature, about 40 degrees F. Eggs will maintain their fertility for approximately three weeks. The fertility drops,

on the average, about one percent a day and about the 20th to 25th day drops off to zero. — *Edward A. Schano, 4-H Club Poultry Specialist, Cornell University*

In New York State, what qualifies a vehicle to be licensed as an agricultural truck?

Section 401 of the Vehicle and Traffic Law reads as follows:

Schedule for agricultural trucks:

1. For each agricultural truck, the annual fee of one dollar and seventy-five cents for each five hundred pounds maximum gross weight, or fraction thereof.

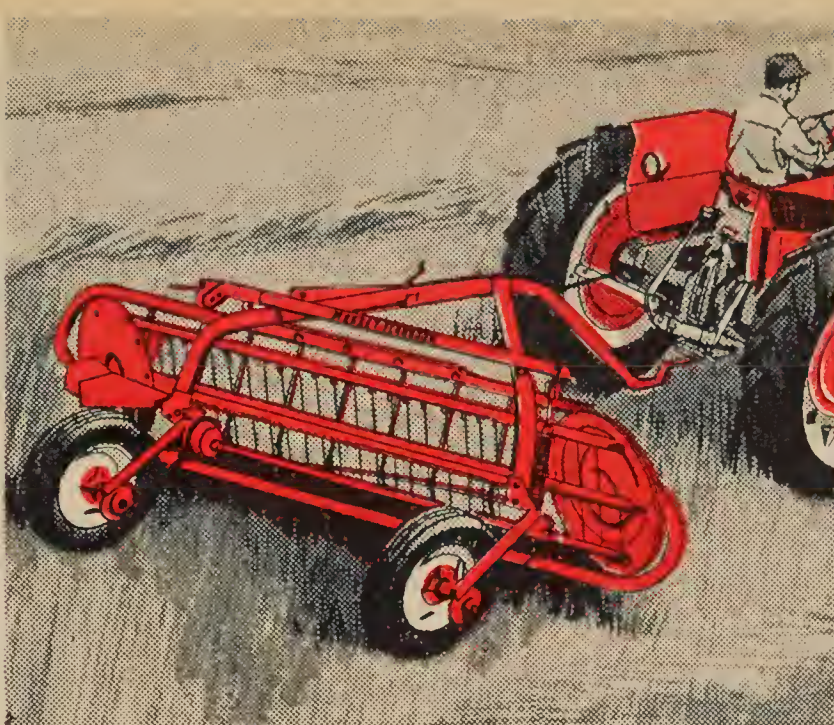
2. For the purposes of this schedule an "agricultural truck" shall be a truck having a maximum gross weight of twenty-four thousand pounds or less, owned by a person engaged in food production by means of (a) the planting, cultivation and harvesting of agricultural, vegetable and food products of the soil (b) the raising, feeding and care of livestock, bees and poultry or (c) dairy farming; and "maximum gross weight" shall mean the weight of the truck plus the weight of the maximum load to be carried by such truck during the registration period. The weight of the truck and such maximum load as stated on the appli-

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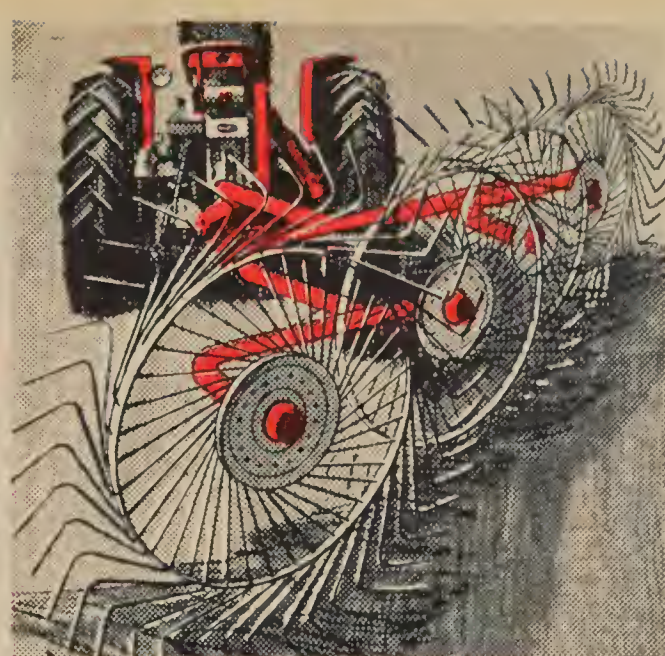
American Agriculturist, May, 1965



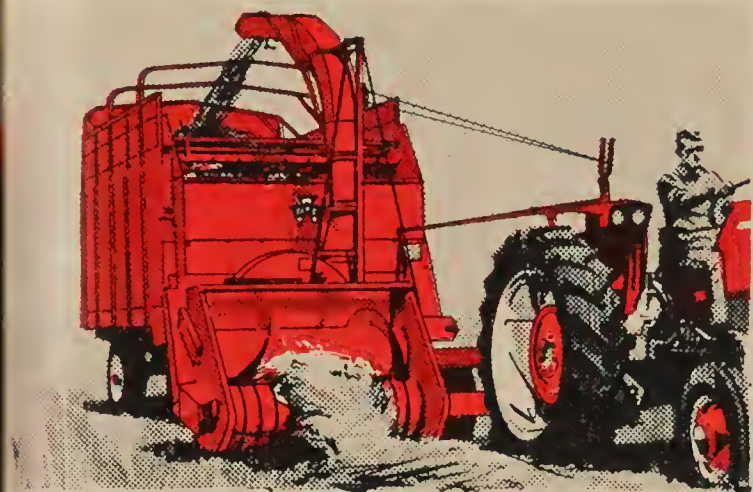
MF 31 Dyna-Balance Mower is fully mounted—can be attached or detached in a minute. Dyna-Balance Drive has no pitman—is quieter, faster, smoother. Cutter bar flotation prevents skipping or digging. Knife speed is easily adjusted to crop conditions. MF 32 Pitman-drive Mower is also available.



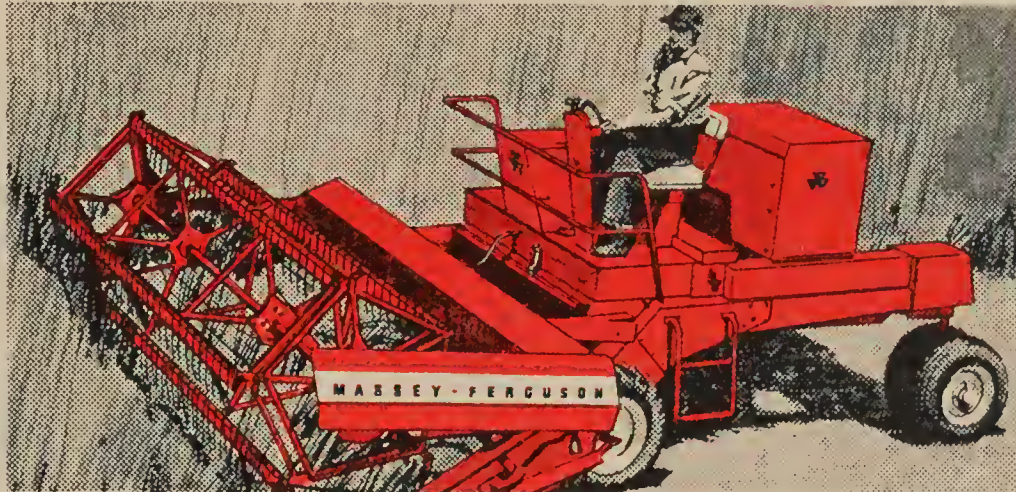
MF 37 Pull-Type Side Rake has exclusive knee action. Windrows up to 8½ acres an hour . . . handles the hay gently, with shorter travel, to protect the leaves.



MF 29 Mounted Wheel Rake is priced low . . . adjusts in seconds for raking, windrow turning, or fluffing. Long-lasting flexible spring steel teeth provide a fine combing action that gets all the hay and gets it clean. Floating wheels follow ground contours.



MF 84 Forage Harvester is shearbar type—fast, clean-cutting. Wide pickup. Chrome-edged slant knives give low-horsepower fine cutting. 4-way deflector spout adjusts to blow chopped crop exactly where you want it. Also with corn head attachment.



MF 44 Self-Propelled Windrower mows, conditions, and windrows in one fast operation. Has exclusive one-hand control of all motion—push steering column ahead for forward, pull it back for reverse, spin wheel for sharp turns. Available in 10½, 12, 14 and 16 ft. widths. Water cooled 140-cu.-in. gasoline engine.



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cation for registration shall be subject to audit and approval by the Commissioner of Motor Vehicles. Such agricultural truck shall be used only for the transportation of his own agricultural or dairy commodities or supplies or for personal passenger use, or used in conjunction with lumbering operations connected with but only incidental to the operation of a farm.

3. A motor vehicle registered as an "agricultural truck" under this schedule shall be operated on the public highways only for the purposes set forth in paragraph two hereof.

My bulk tank was calibrated using water at 50°F. and now we have to cool our milk to 36°F. Will the lower temperature result in the contraction of the milk so that a lesser amount will appear on the dip stick?

If the dip stick contracted at the same rate with drop in temperature as the milk there would be no change in the reading when the milk was cooled from 50 to 36°F. However, liquids in general contract more rapidly than solids. The error is due to the difference in the two contractions.

In this case, the contraction of 18 inches of average milk would be about .034 inches. A stainless steel rod would contract about .0001 inches. The apparent change in depth of the milk would be about .034 inches, approximately 1/28 of an inch.

The values would depend somewhat upon the fat content of the

milk. Skim milk would show less error, cream would show considerably more.

— Prof. B. L. Herrington, Cornell University.

I had a pond dug on my farm and would like to seed it with aquatic plants. Can you tell me what kind I should get and where I can buy them?

You should consider that many aquatic plants will enter your pond naturally. You do not need to plant them (in most instances) although this will sometimes hasten their invasion of new ponds. There is no special need for plants in ponds, of course, but taking plants which grow in nearby ponds and placing them in your own is the surest way to get some plants.

Commercial sources of aquatic plant seed are advertised in most fishing and hunting magazines. There are so many I could not begin to list them. — Bruce T. Wilkins, Extension Specialist, Cornell University.

I have about 15 Angus cows and grind my own feed. Will barley, rye and wheat ground together make a good feed to hold the cows over in the winter time with plenty of good hay?

Actually, beef cows can be wintered on just plenty of hay and/or silage throughout the wintering period. If your cows started the winter program a bit thin and you wish to get them in better condition you may want to use some grain, particularly shortly before and

following calving time. Since any of the feeds mentioned are satisfactory if fed in small amounts, I would suggest you use them in proportion to the amount available for feeding.

I would like to stress again that if you have plenty of good hay I question if you will need to feed any grain to your brood cow herd. It probably would be more profitable to use the grain in feeding your younger cattle, and again I think you can use it in proportion to the amount available for feeding. The only exception would be that if you have mostly wheat you might want to keep the amount of wheat fed down to not more than one-third of the ration. — M. D. Lacy, Animal Husbandry Dept., Cornell University.

We have a drilled well and are troubled by rust in the water. Would a filter correct this situation?

Water filters, in general, have certain limitations which should be recognized. The pore spaces or filter openings must be smaller than the suspended particles which are to be removed. The smaller the openings, the greater will be the water pressure drop and the quicker the filter will plug with sediment.

The useful life of a water filter and its effectiveness in removing the suspended material depends upon the size of the suspended particles, the degree of turbidity, and the amount of water used. It is, therefore, impossible to judge

whether or not a particular "in line" water filter would be satisfactory without having more information. It would be easier and less expensive to install the filter on a trial basis.

Many water-conditioning equipment manufacturers build filtering tanks of 20 to 30 gallon capacity which are fitted with the necessary plumbing for backwashing. In the long run, replaceable filter elements for a small "in line" filter are an expensive substitute.

Your letter suggests that your water supply contains iron in the dissolved form (ferrous bicarbonate) and that the iron changes to ferric hydroxide, a rusty precipitate, when it is exposed to air. Iron bacteria may also be active. Both situations can be controlled with an automatic chlorinator and filter. These units should be designed for your particular needs. I would suggest that you present the problem to a representative of a reputable water-conditioning equipment manufacturer, who will analyze the water for chemical impurities and recommend the proper treatment equipment for your situation.

The pipe itself is not likely to be a serious contributor to the problem unless the water is very acid and/or iron bacteria are present. Replacement of the iron pipe with copper or plastic will not solve the problem. — Carl S. Winkelblech, Agricultural Engineering, Cornell University.



“301...302...aw, it's never gonna miss! Let's go swimmin'!”

From a boy's viewpoint, *system* haying may look less exciting than oldtime methods, because so much of the *risk* is removed. His Dad can tell him that any lack of excitement is more than made up by *profitability*. From where *he* sits, that's the name of the game. His haying system is Allis-Chalmers Orange from mower to mow, and nobody around is putting up better quality or more nutritious hay than he is. His mower and conditioner give great performance

with his Allis-Chalmers tractor. So do his 303 baler, thrower and power box, the no-miss team working above. His 77-G rake made the fluffy windrows, and his A-C conveyor will put those neat bales in the mow fast as he brings 'em in. He's got a true one-man system that saves hay, manpower and time. And he's got a service-minded Allis-Chalmers dealer to *keep* his system clicking for him. If *you* think the system way, you know where to go for help!

ALLIS-CHALMERS • THE TRACTOR PEOPLE • MILWAUKEE, WISCONSIN

CABBAGE

Gets Status



by Gordon Conklin

SOME CABBAGE GROWERS in Monroe County, New York, are raising to a new level the storage status of the once lowly cabbage. Traditionally, cabbage has been stored in the basements of old barns or in other somewhat makeshift arrangements . . . but not on the farms of growers like John Martin and Sons at Brockport, John and Robert Sodoma (also at Brockport), or at the Colby Homestead near Spencerport.

The Sodoma brothers bought what was once the theater at the former Sampson Air Force Base south of Geneva, New York, and converted it to a huge storage well suited for cabbage. Moving one of these structures requires considerable tearing apart and re-assembling, but it also provides considerable savings over what a new structure would cost.

From Sampson

John Martin and sons Robert, Richard, and Bernard also built their storage using a framework partially taken from the former Sampson Base. They had the roof



Storage on Sodoma Brothers Farm was once a theater at Sampson AFB.

trusses from the huge drill hall picked off and then reassembled at their storage. A carload of 2 x 10's was purchased for roofrafters between trusses, and for nailing girts on the sidewalls. Refrigerator doors were also salvaged from the former Air Force installation to provide economical small entrances to the building.

It's a structure measuring 115 x 254 feet and has room for 4,000 pallet boxes . . . each holding 1,800 to 1,900 pounds of cabbage. Industrial type fork lifts mounted on industrial IH tractors are used to move these boxes and stack them six high in the 20-foot high storage.

Actually, the storage wasn't filled to complete capacity in 1964, because plenty of air space was allowed between stacks when it was filled in order to provide ventilation and better cooling. As every cabbage grower knows, the respiration of cabbage in storage produces considerable heat . . . and too much heat can cause beaucoup quality problems.

Four exhaust fans at one end of the building pull air in when outside temperatures are below 40 degrees Fahrenheit; they are turned off when temperatures exceed this level. Ceiling fans recirculate air in the storage to prevent "hot spots." Even so, county agent Paul Turner is continuing to work with the Martins to develop better ventilation and improve on the temporary expedient of long perforated plastic sleeves that deliver incoming air across the storage.

Insulation

Insulation consists of three inches of expanded polystyrene on sidewalls and five inches of the same material on the roof. This insulating material, in a thickness of two inches, was placed for a depth of two feet below ground level along the foundation footing to prevent frost from coming into the storage around its perimeter. The building could be converted into a mechanically-refrigerated structure (or even a CA structure) with a minimum of modification. In a world of fast-changing agriculture, the Martins believe a building should be built so it can be used for many things.

The outside "skin" is steel, having a factory finish that looks a bit like enamel. The floor is gravel, but it may eventually be replaced by concrete. Tractors work well on the present floor, but if the structure were sealed and refrigerated it would require elec-

tric fork lifts so gasoline fumes (presently drawn out by fans) wouldn't be present to affect taste of stored produce.

Specialists at Cornell University are already testing modified atmosphere storage of cabbage, a process that has already been investigated to some degree with potatoes, and very extensively researched for apples.

Packing Line

Bob Martin heads up the job of packing out of storage . . . to the tune of 1,600 to 1,700 bags a day . . . each containing 50 pounds of U.S. No. 1 cabbage. Each box stored has been averaging 27 bags of trimmed heads. "We'd like a six-month packing period," Bob says, "going way up into May." As it is, they finish in mid-April.

Refrigeration would allow the Martins to start cabbage harvest between the 5th and 10th of October, giving them a week's jump on the job over what is now the starting date. This would help them stay out of the mud that always accompanies wet weather late in

the season. With the acreage of cabbage they handle (160 in 1964) they have to roll fast and hard . . . and as early as possible.

The cabbage business is notorious for its "boom and bust" characteristics in terms of violently fluctuating prices, but the Martins make no plans to "hold for a higher price." They have to pack steadily in order to meet the needs of their customers, and in order to meet the overhead costs of storage, equipment, and packing crew. A production line approach rather than the guessing game attitude is the method on which they place their chips.

Merton Colby and son Jim over at Spencerport have a 62 x 120-foot storage having a stud wall construction made up of 2 x 8's cut from their own woods. Their 32 x 50-foot packing room is attached to the storage, but not inside it as is the case with the Martins. Toward the house and road, the Colbys used novelty wood siding, but the rest is zinc-coated steel.

The storage ceiling is corrugated aluminum siding, caulked along all edges. Above that are insulation bats 6 inches thick. Sidewalls are 1/2-inch exterior plywood, also insulated with 6-inch bats on the outside of the plywood. A vapor barrier between plywood and insulation is formed by a 4 mil polyethylene film. The floor is sand, trucked in for that purpose to cover the three to four feet of fill.

The Colbys also use perforated plastic tubes to disperse incoming cold air over the storage . . . pulled in by exhaust fans. They try to keep their storage temperature at 32 degrees Fahrenheit.

Merton says, "There has been more progress in storing cabbage in the last four years than in the previous 50! We used to do it all wrong by making air openings along the floor. If the storage was cold enough, cabbage often froze

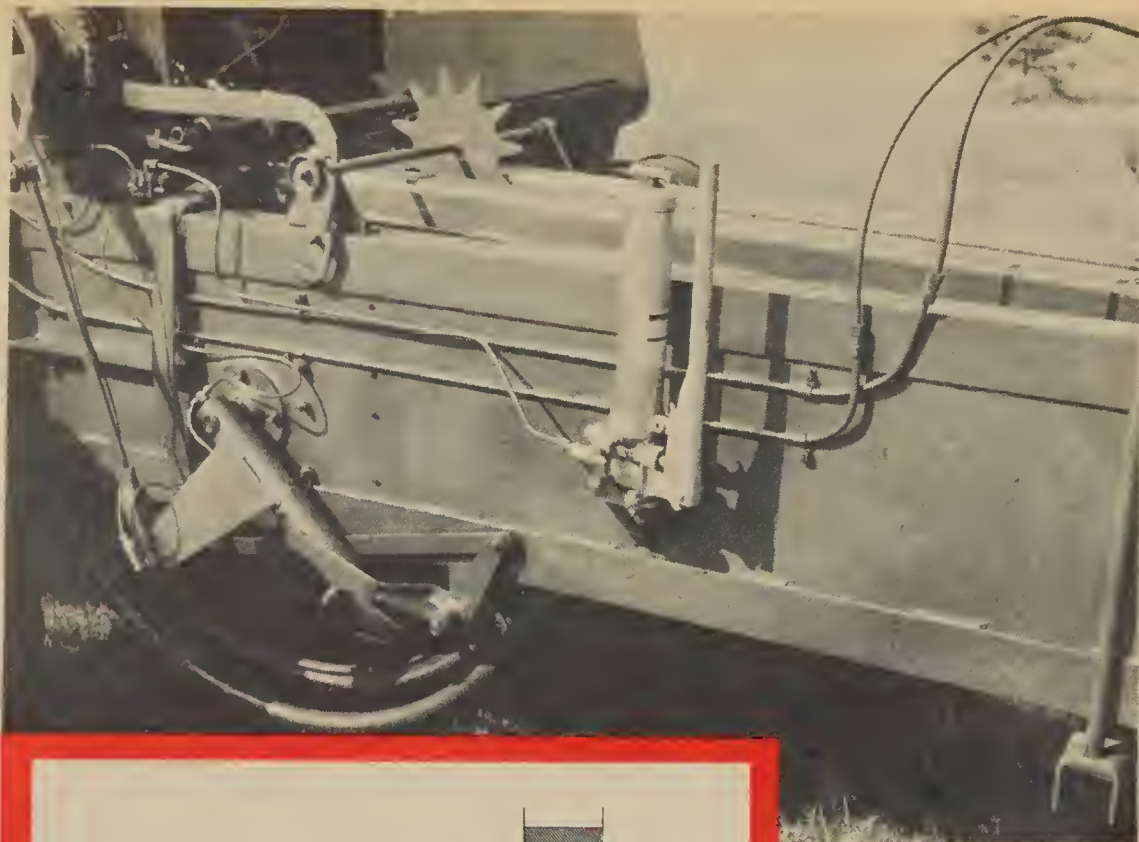
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Paul Turner (left), Associate County Agricultural Agent, discusses cabbage storage recording thermometer with Bob Martin.

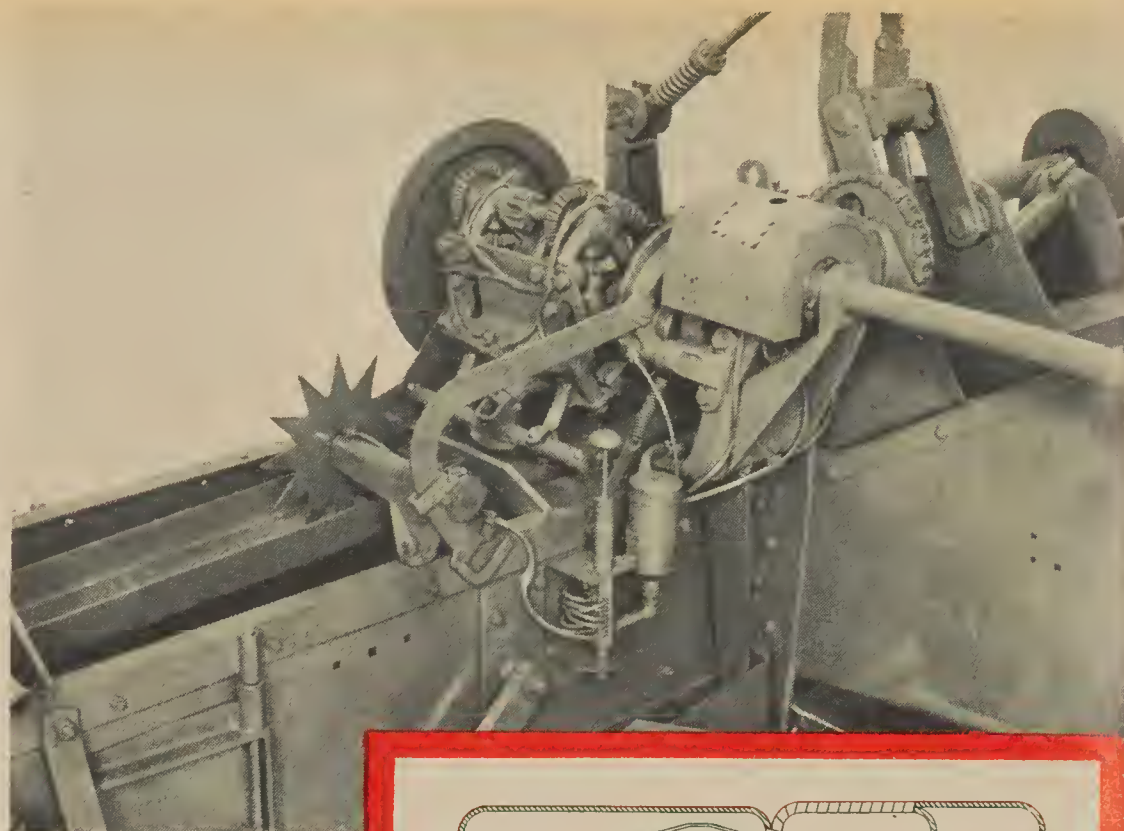


Merton Colby uses a plastic "pipe" to distribute air in his storage. Floor of storage is sand.



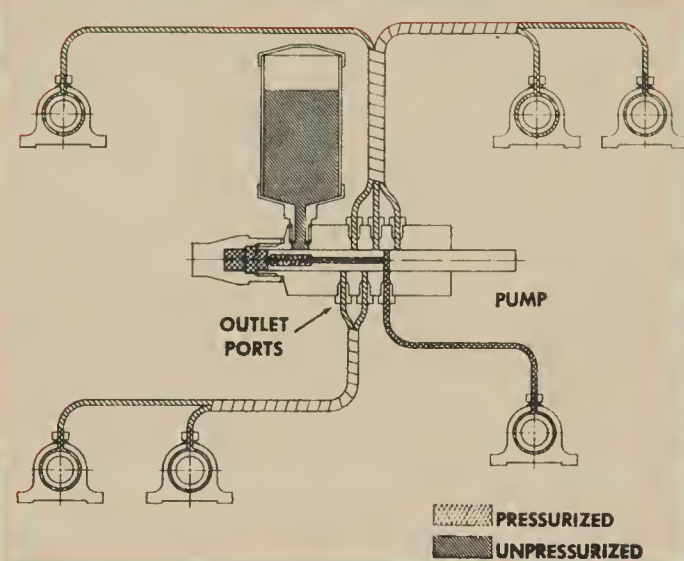
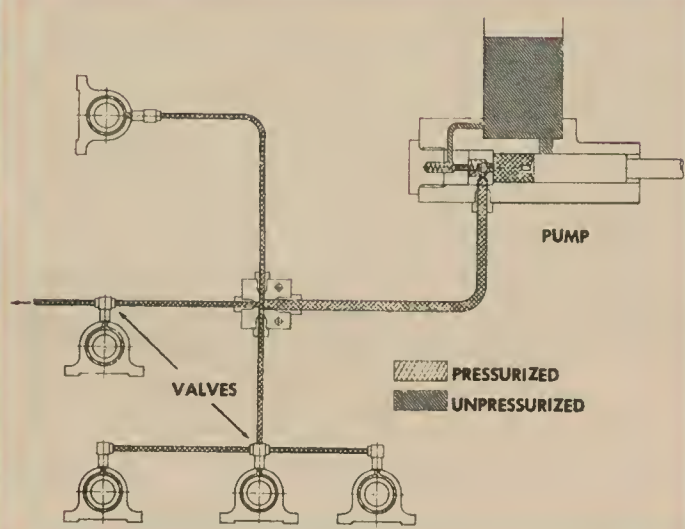
**SINGLE-LINE
SYSTEM ON A
BALER**

Single-line system includes a measuring valve at each bearing.



**MULTIPLE-LINE
SYSTEM ON A
BALER**

Multiple-line system uses pump to measure lubricant to each bearing.



LUBRICATING SYSTEMS

by Wes Thomas

ADEQUATE LUBRICATION of farm equipment becomes even more critical as the loads on the bearings and shafts are increased to handle the higher power of present-day tractors. However, the increased complexity of the machines themselves often makes it more difficult to reach the grease fittings with a regular grease gun.

In some cases machinery manufacturers are using sealed bearings which do not require lubrication during their normal lifetime service. However, in many situations this approach is not practical, and periodic re-lubrication is necessary for satisfactory performance.

To make the grease fittings more accessible, they can be arranged in a row of several fittings at any convenient location on the machine. Lightweight tubing connects these fittings with the bearing to be greased. This arrangement, known as bank lubrication, still requires manual operation of the grease gun. Normally, the major critical points to be lubricated are connected to these remote fittings; other fittings that are more accessible are usually greased directly, in the conventional manner.

Centralized System

The ultimate in convenience and efficiency is a centralized lubrication system which provides a small quantity of lubricant to each bearing at frequent intervals. Two such systems are presently available on several pieces of farm equipment. In general, it's better if the system is included on new machines as a

factory-installed option; in some cases the manufacturer of the machine may provide a kit for field installation on existing machines. The two systems are alike in many ways, but differ in enough respects that each has its own advantages and limitations.

Each arrangement includes a pump, storage reservoir, lines to connect the pump to the bearings, and a means for metering or dispensing the lubricant to the bearings.

The pump and reservoir are usually part of the same assembly, or at least closely coupled. Lubricant level is checked by a dipstick or a follower rod, unless the reservoir is made of a transparent material which permits visual check. The frequency with which the reservoir must be filled varies widely because it depends both on reservoir size and the number of lubrication points on the machine.

In some cases a fitting is included so that the lubricant can be transferred directly from its original container through a hose to the reservoir. This arrangement helps reduce contamination of the lubricant. Small-diameter nylon tubing is used as the connecting lines; in most cases covered for protection against physical damage.

The pump itself may be powered by hand, by engine vacuum, by hydraulic system pressure, or by air pressure. Usually, the operator must either work the hand lever or trigger the power source to operate the pump.

One of the benefits of centralized

lubrication is frequent application of small amounts of lubricant, but the operator-controlled system often tends to defeat this advantage. There's a temptation to wait until "a stop for noon" or for "the end of the day" before taking time to operate the centralized lubrication system.

In some cases, the frequency of lubrication can be related to some regular repetitive portion of the machine operation... for example, operating the lubricator on a combine each time the grain tank is emptied.

Controls Available

For completely automatic operation, however, there are controls available which can be tied into the cycle of machine operation. For example, in a baler the system can be arranged to dispense a small amount of lubricant each time a bale is formed.

The lubricant dispensed by the centralized system is not the stiff, grease-gun variety. The heavy soap base of these greases is not needed to retain the actual lubricating oil, if the oil can be pressure-injected at the lubrication points at regular and frequent intervals. The lubricants used by the centralized systems are oils or semi-fluids.

The primary differences in the two centralized lubrication systems... single-line and multiple-line... are in the methods used to meter the lubricant to the bearings. In the single-line system, a distribution network which includes a measuring valve at each bearing

is supplied by one line from the pump. On the pump pressure stroke, lubricant is forced from the valve to the bearing. On the pump return stroke, the valve is reloaded for the next cycle.

The advantages of the single-line system are:

1. Broken lines cause the system to lose pressure; thus, any breaks are readily detected.

2. Regardless of the number of bearings lubricated, only one pump is required.

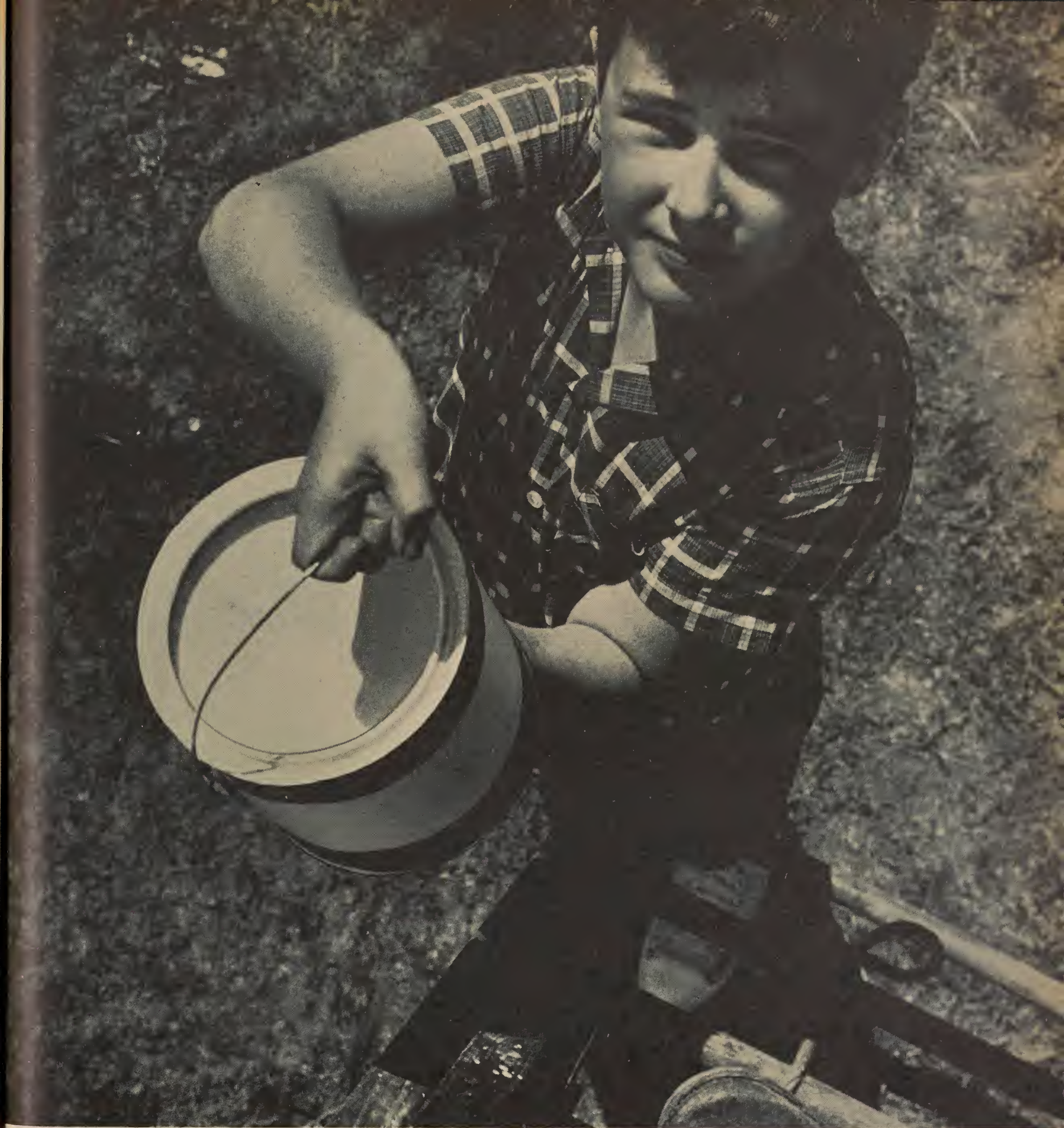
3. If the system includes bearings with widely-different lubrication requirements, a wide range of metering valve sizes can be used to meet these requirements.

4. A variety of bearings with lines and valves already installed can be plugged into the central system by use of quick-disconnect couplings. An example of this might be a combine with both a corn and sickle bar head. Each head could be equipped with appropriate valves and lines, which could be plugged into the central system when the head is installed on the combine.

In the multiple-line system, the pump is the metering device. Separate lines connect each bearing with openings in the walls of the pump cylinder. The piston contains a cross passage which is connected to the reservoir end of the pump. On the working stroke, lubricant flows to each opening in sequence as the cross-drilled passage goes by. Amount of piston

(Continued on page 26)

American Agriculturist, May, 1965



the new Agway:

paint so durable it'll still be protecting your home when he goes to college

Put one coat of Agway white house paint on now and you can take it easy for seven years. That's how long it'll last. Two years more than most well-known paints.

In fact, this 11-year-old boy will be in college when his farm home needs another refreshing coat.

Most white paints are city paints.

Made to chalk fast in an atmosphere of soot, dirt and fumes.

Agway white paints are farm paints. Made to chalk slowly where the air is fresh.

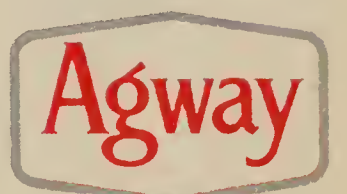
And the slower the chalking, the longer the wear.

So you get two years free with one

coat of Agway white house paint. And you save money because you don't paint as often.

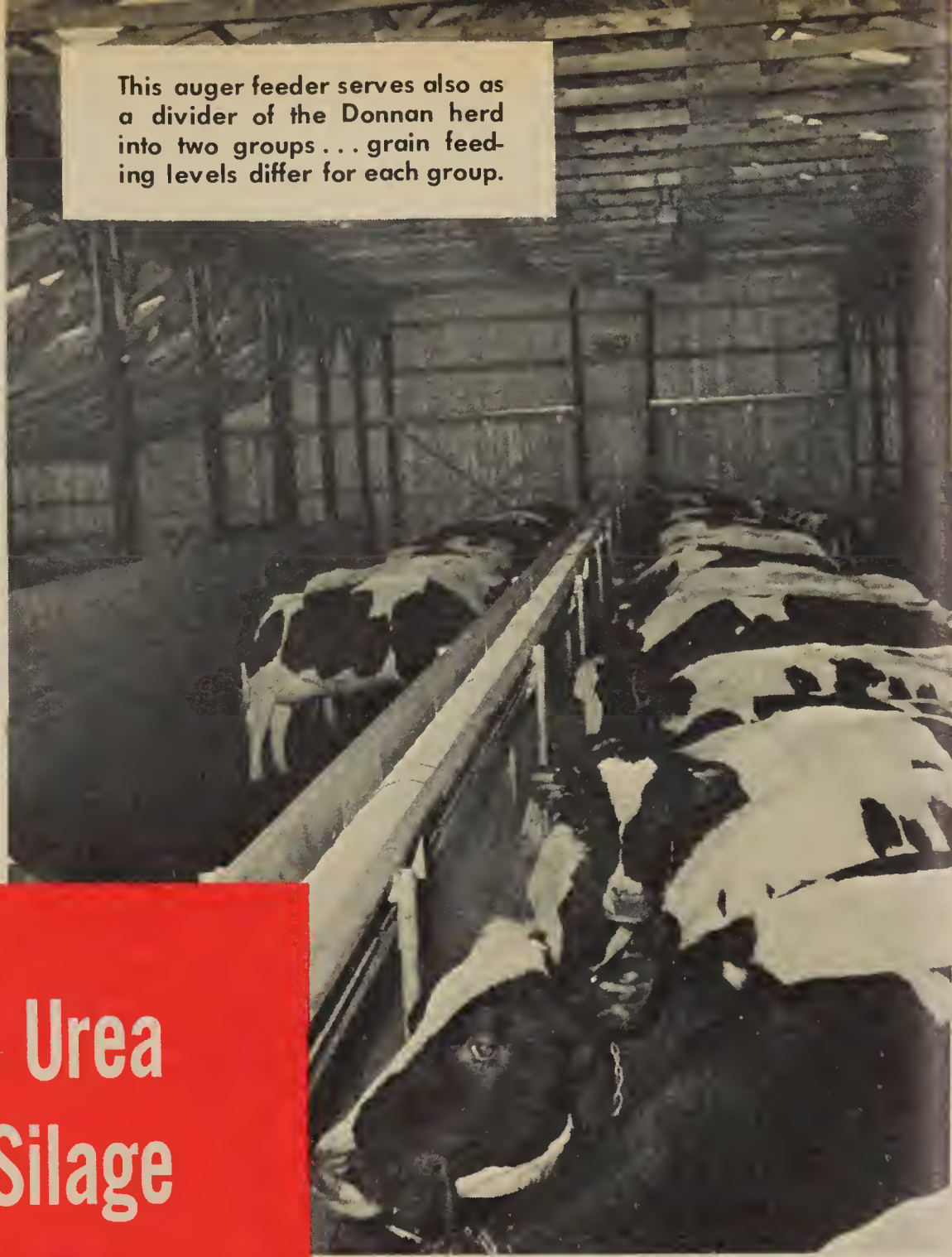
You can't tell white paint just by its color. Get the refreshing one made especially for farm homes. Available only at Agway, Agway Inc., Syracuse, N. Y.

QUALITY CONSUMER PRODUCTS





Ernie Donnan pours urea to be mixed with corn silage. Roller mill in background crushes high-moisture shelled corn.



This auger feeder serves also as a divider of the Donnan herd into two groups... grain feeding levels differ for each group.

Feeds Urea With Silage

by Gordon Conklin

"WHEN I WAS studying at Cornell, I used to feed a steer on experiment. About all he got to eat was some chopped hay, topped with a cupful or two of urea. I concluded that, if done right, urea can be safely fed as an economical and adequate protein supplement." So comments Bruce Donnan, who helps operate a 120-cow dairy farm near York, New York, along with his father, Stewart, and brother, Ernie.

Corn grows well in this area, and last fall the Donnans filled a 20 x 50 Harvestore with... wait a minute now... high moisture shelled corn! This was harvested with a combine, beginning on October 1. They prefer a moisture content of somewhere between 25 and 28 percent. "We don't worry about the moisture level, though," Bruce says, "as long as the corn will go through the combine without being so mushy that it fills up the sieves and goes right on out the back."

There is plenty of corn silage for feeding, too, with a 20 x 60 silo (another 20 x 60 will go up soon), a 16 x 55, and a 10 x 33 available in addition to the one holding grain. Corn, though, is notoriously low in protein, so Bruce consulted Morrison's Feeds and Feeding to work out a balanced ration for winter.

The way it works out, cows get just under one-half pound of urea per cow per day... dribbled from a pail (it flows like salt) onto corn silage as it goes by in one auger headed for the auger-equipped silage bunk. The bunk auger, by the way, is one that automatically counts out the numbers of

"dumps" programmed into its electronic controls, giving a high degree of accuracy in measuring the amount fed.

The high-moisture corn is run from the air-tight silo through a rolling mill and into a silage cart. Then it is pushed to the hopper at the base of the silo containing corn silage, and the crushed shelled corn is mixed with the silage as it goes roaring by through conveyors. "If we didn't mix silage and grain, the 'hogs' would really tank up on grain," Ernie says.

No Parlor Grain

The Donnans don't feed any grain in the double-four herringbone milking parlor. "We think our cows are quieter because they're not fighting for more grain," says Bruce. "Some cows even chew their cuds while being milked. We prefer not to feed in the parlor, believe that the minor problems of getting them to enter

the parlor without some bait are less than the ones associated with graining them there."

Hay is fed in a bunk in the new barn complex, but no provision is made for feeding in the new free stall area (80 x 112 feet) itself. "We think hay is on the way out for us, so we put the temporary hay bunk (104 feet long and about 5 feet wide) in the wide alley between free stalls and parlor," says Bruce. The 106-foot silage feeding bunk separates the milking herd into two groups; one group has access to free-choice hay all day and the other group all night.

What cows go into which group depends on milk production, because grain feeding levels are different... that silage bunker auger can dump to either side. One group of cows gets an average of 10 pounds of crushed shelled corn per cow per day; the other group averages 20 pounds per cow per day.

The most recent DHIC herd average shows 13,600 pounds of milk per cow... even with nearly half the herd first calf heifers. The Donnans are happy with the herd's performance, both B.U. (before urea) and A. U. (after urea)... but they're saving about \$12 per day as compared to using soybean oil meal as a protein source. Only the milkers get urea; none is fed to calves or young stock. During the summer, crushed corn and haylage are fed with no urea; haylage made from alfalfa provides enough protein.

Oats are grown on the Donnan farm, but not for grain. "We wouldn't plant oats except to establish a seeding; we use them for 'oatlage' and sometimes take a cutting off the new seeding the year it's made," says Bruce. "As for timing on cutting oats for silage, we go by the advice that if we can see a head, cut 'em!"

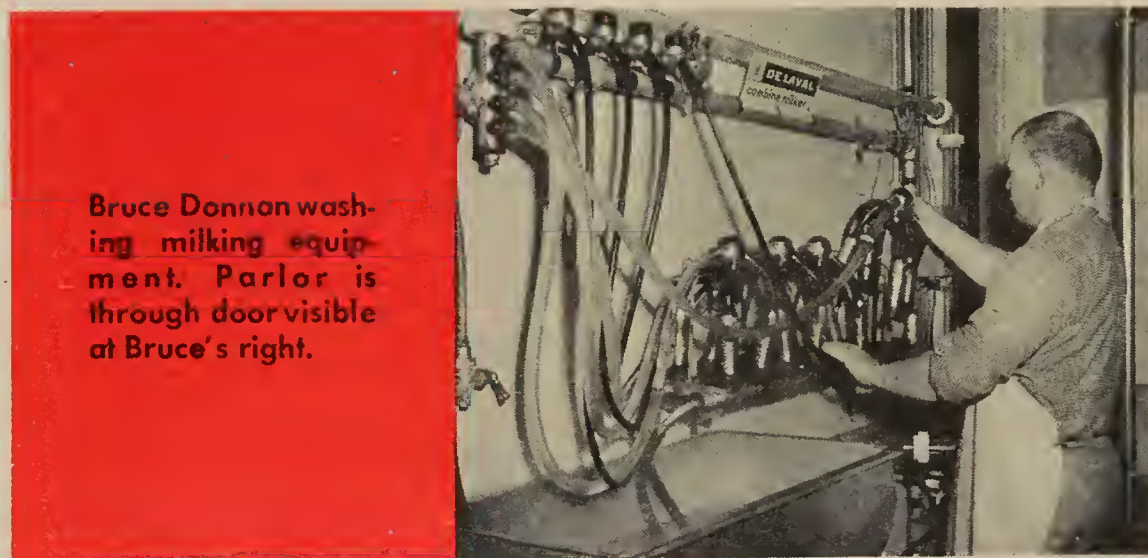
Stall Dimensions

Turning again to the free stalls, they are seven feet three inches long, four feet wide, and have a curb at the rear 11 inches high by 5 inches wide. A 2 x 4 is bolted across the steel pipe partitions 30 inches back from the front of the stall... this forces cows back when they rise and keeps stall bedding cleaner. The partitions, by the way, are spot-welded into a larger pipe set in concrete, so they can be easily removed.

Bedding use that was once 20 bales a day in the 85-stall conventional barn (now used for dry cows and young stock) has dropped to 30 bales every two weeks

(Continued on page 27)

American Agriculturist, May, 1965



Bruce Donnan washing milking equipment. Parlor is through door visible at Bruce's right.



the new Agway:

how Royal Selwell Benefactor returned \$1010 income over feed costs

Here are the remarkable figures
(DHIR, 305 days, 2X):

30,360 lbs. of milk ... gross return ...
\$1,500

Minus cost of 11,000 lbs. of grain and
Agway Mixer Krums; hay and silage

Benefactor's income over feed costs ...
\$1,010

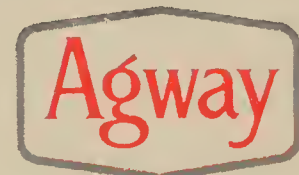
Benefactor produced more butterfat in
305 days, 2X, than any other registered
Holstein in New York State. Across the
country, she ranks second in her class for
butterfat—1450 lbs. (According to DHIR,

for 365 days, 2X, Benefactor produced
33,720 lbs. of milk and 1607 lbs. of fat.)

Her owner, George Fugle of Attica, N.Y.
participated in the early development of
Agway's Profit Feeding Plan. Ever since,
he has managed his 50 cow herd in con-
formance with PFP principles. A fine herd
and the magnificent records of Benefactor
are the results.

Do you have a potential profit-maker in
your herd that might match Benefactor?
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like PFP you may never know.

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Profit Feeding Plan has demonstrated that
7 out of 10 cows can increase—signifi-
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PFP and a high energy Agway Ration show
you whether or not you have any record-
breaking cows in your herd. Call your local
Agway Store or Representative today.
Agway Inc., Syracuse, N.Y.



DAIRY FEEDS & SERVICES

NEW "KING-SIZE" RIGID-RIB* ROOFING SAVES UP TO 30% OF LABOR COSTS

Longer, wider, stronger sheets
cover more roof faster,
with fewer end and side laps



Suppose you had 2,000 square feet of roof to cover. How would you like to do it with 88 fewer sheets than you'd have to lift and nail down if you used conventional steel roofing? That's right — 32 sheets instead of 120!

That's what happened on the job you see in the photo above, where new "king-size" Republic Rigid-Rib Galvanized Steel Roofing Sheets were used. The sheets you're looking at are a full 28 feet long and 30 inches wide. The extra length eliminated 80 end laps. The extra width reduced side laps to only 31. And the extra strength of Rigid-Rib made it possible to widen purlin spacing to 30-inch centers instead of the usual 18 inches, saving a very considerable amount of lumber and work.

You can get savings like this for your buildings too — right now. Your local Republic Steel Farm Products dealer has complete stocks of new Rigid-Rib Roofing. Talk to him about it soon. He'll help you figure your requirements and demonstrate Rigid-Rib's other remarkable qualities as well.

(We also have a new booklet that tells in detail how Rigid-Rib will save steel, lumber, and labor when you re-roof or cover new buildings. Use the coupon to get your copy.)

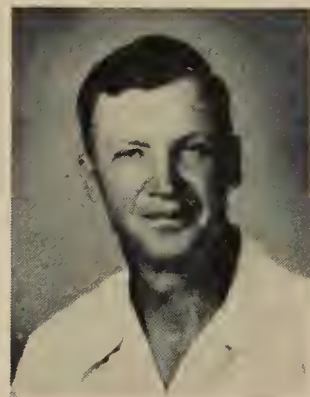
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Gayway Farm Notes

by HAROLD HAWLEY

HAYLAGE

Being the conservative type, I usually take the build-up for something with a generous grain of salt. This accounts for my reservations about haylage. We went to it to save labor and to provide a chopped roughage we could feed in a slotted-floor barn (a roughage in addition to corn silage, that is).

When we started to feed haylage, I thought we were in for a really rough time. The top 3 to 4 feet were sticky and gummy and gave the silo unloader a hard time. However, once we fed off the top few feet, the stuff started to come out much better.

We tried running both corn silage and haylage into the feeding auger at the same time in order to get the cows to start right in on the haylage. This worked so well that we are still running together the two feeds from the silos. Of course, no feed comes out of the silo any better than it went in — and surely this would be true of late-cut or weedy hay. To make haylage of such would result in disappointments. Good hay cut on time comes out fine, with apparently a high degree of acceptance on the part of the cows. Of course, I'm pleased that they eat it well, but I get downright enthused when they milk the way they do on it. After all, it should be good feed. Alfalfa, windrowed before breakfast and in the silo before too much sun or any rain has come along to reduce its natural worth, should rank with the best of roughage.

One thing we have learned is that it needs to be chopped as fine as possible. To that end we have changed choppers and will have a recutter screen behind the knives to insure a fine cut.

RATE OF CHANGE

To say that change is the dominant characteristic of American agriculture is an understatement. The rate of change is the really impressive and terrifying thing. The capital requirements to switch enterprises, or to change equipment to handle a crop, or to add equipment to replace labor, are literally staggering. The rapidity with which equipment changes or whole systems change leaves one with a whole set of fairly good yet almost obsolete equipment. The beating one takes to swap it in really hurts! The list extends through milk coolers for cans to springtooth harrows no longer used for fitting corn ground to forage boxes with false fronts

replaced by self-unloading wagons, etc., etc.

We are in the midst of a bunch of changes and decisions which would be fun if they weren't so costly. Obviously, we will need more silage for the extra cows we are to keep. Likewise, the switch from bales to haylage means a lot more tons of chopped forage to cut and store. So last spring we went to self-unloading wagons and a PTO blower. So far, so good.

Now we have a new forage harvester. With the prospect of going to high-moisture corn, we naturally wanted to use the forage harvester to grind or crack the corn and cob. It's not only a question of which machine to buy but what we can eliminate. With extra acreage in corn and hay, have we come to the time of forgetting small grain and getting rid of the combine? If we can do this, we might also look twice at the baler... no straw to bale and then we could chop all the hay.

Round and round we went, even to the point of looking into the cost of self-propelled choppers vs. pulled-behind ones. We settled for a pull-behind job. To handle this two-row pull-behind job will mean swapping for a bigger tractor. Anybody care to argue that the work must have been harder and the decisions easier when the equipment consisted of a scythe and a corn knife?

IS R.I. FOREVER GONE?

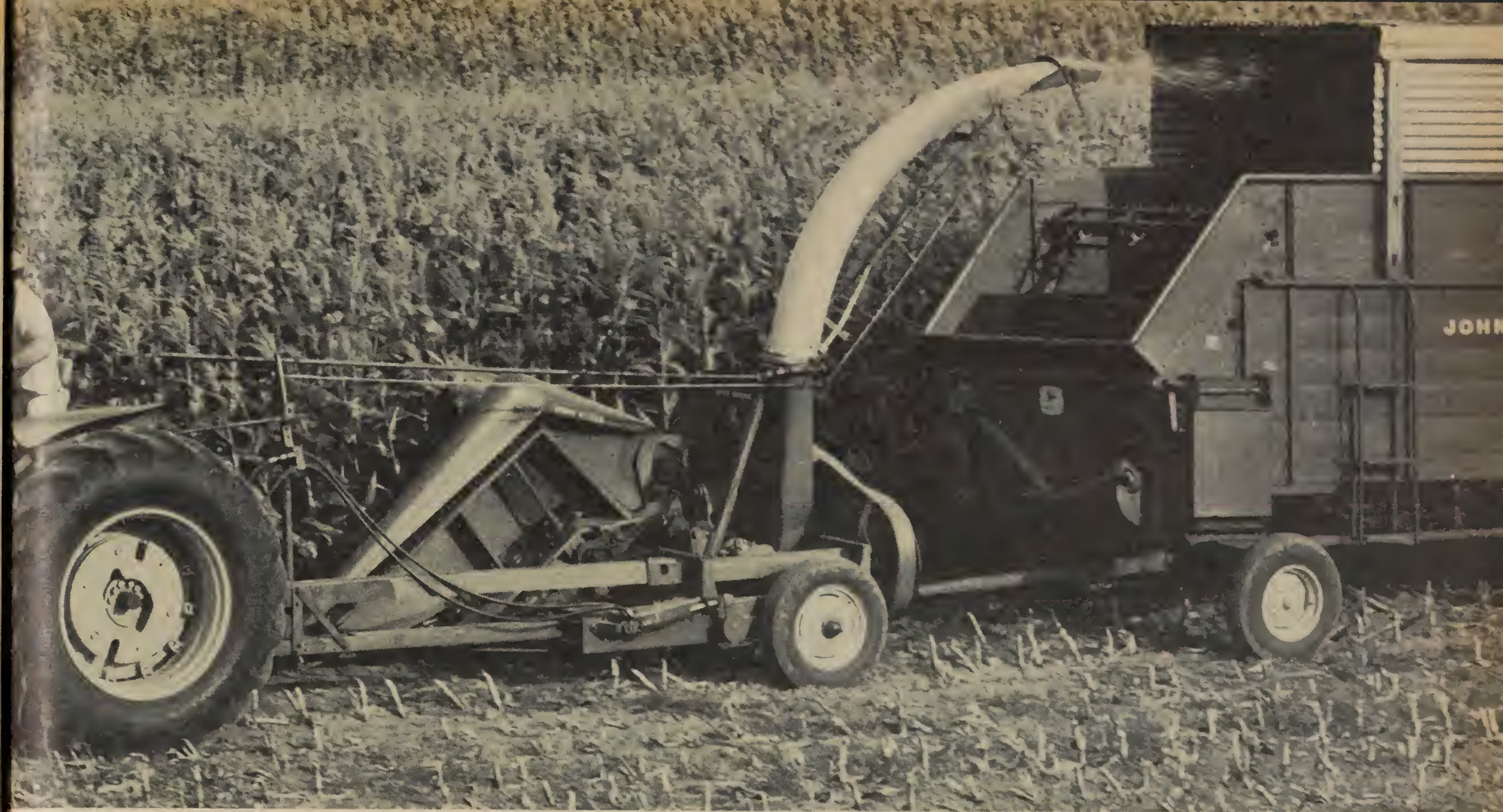
Was the time when there was little doubt where people stood on issues. Even their individual shades of difference of opinion were no secret. There were many who pursued their own course regardless of whether they were swimming upstream or happened to be moving in the same direction as the crowd. It mattered not to them whether their "image" rose or fell — they steadfastly followed their consciences and convictions. Their voice was heard thundering approval or defiance to whatever the issue.

Some place along the way a new invention occurred; it was known as middle-of-the-roadism. Following the completing and perfecting of this great invention, R.I. (rugged individualism) began its great decline, until at the time of the last census the number of rugged individuals was at an all-time low.

No longer does the preacher speak out in thunderous tones against the sin of his flock. Some have even become puzzled as to

(Continued on page 41)

American Agriculturist, May, 1965



"This one-row unit does a good job of picking up downed stalks."

"We cut our hay and corn at 1/4 inch."



"It has a wide throat opening so it can take in plenty of corn."



"Our John Deere 12 Forage Harvester's capacity and quality keep us on schedule"

A New York dairyman reports:

Fay Totten, Stafford, New York, has 150 head of holsteins and generally milks about 125. In 1963, the herd produced 1,370,000 pounds of milk and they hoped to reach 1-1/2 million pounds in 1964. Mr. Totten found that the best way to make dairying pay off was to specialize in it. He spends most of his time with herd and management chores. Mr. Totten's brother-in-law, Barton Buck, does most of the field work.

"Because I'm a dairyman, I believe in good-sized, quality equipment. We have no time to spare. When we're out in the field we want to get things done on schedule because we have a lot of other irons in the fire. Our John Deere 12 Forage Harvester's capacity and quality keep us on schedule.

"This forage harvester is the heart of our operation. We use it for chopping our corn and for making haylage. The cutterhead has chrome-plated knives and they really hold their edge. Normally we sharpen them about four times a year. Some others I know are sharpening theirs twice a day. We cut our hay and corn at 1/4 inch . . . as fine as we can get it. We get more in the silo and packing is much better.

"Before we bought the 12, we had trouble chopping short corn. This one-row unit does a good job of picking up downed stalks. It is designed to get down low, get in, and pick up every ear. It has a wide throat opening, too, so it can take in plenty of corn and keep taking it in.

"The John Deere 115 Chuck Wagon sure is a top-quality wagon. I also like its big capacity. There's no comparison between the John Deere Chuck Wagon and the others we have owned. There's a difference in cost, but we find it's worth it.

"We like the idea of having all one kind of equipment because we know they're designed to work together. We have fewer worries and we know parts and service are available at one place."

See your dealer—the man who sells and services *The Long Green Line of John Deere Hay and Forage Equipment*—for complete details on the heavy-duty 12 Forage Harvester. He also handles the low-cost No. 6. If you would like a demonstration, just ask for it. Ask about the Credit Plan, too.

JOHN DEERE

Moline, Illinois





COMING CLOSER

During part of my 70 years, I happened to live under so-called feudalism in the Ukraine, my native country. Under the communistic regime, I had a taste of the Colchese system.

Although the democratic system differs from the communistic system like day from night, yet the average American farmer, for one

reason or another, cannot say he is happy. The dream is still a dream, even though Isaiah said in the Scriptures more than 2,000 years ago, "They shall build houses and inhabit them, and they shall plant vineyards and eat their fruit; they shall not toil in vain, nor bring forth into an early death."

If I ever learned something worthwhile in my life, it was during an incident while I was a boy. My father and I were caught by a severe blizzard on a lonesome road driving a team of horses hitched to a sleigh. Unable to see the road to maneuver the horses, and being in terrific danger, my father in desperation decided to give up the reins and let the horses

go their own way, depending upon their instinct. Fortunately, the animals succeeded in bringing us home safely.

Many times we do not possess even the animal's infallible instinct . . . and we cannot always even trust instinct. I have witnessed incidents when horses were unable to detect gulleys covered with snow and perished there with their masters.

We in this country are blessed to have so much land that the population could be fed even if it increased manyfold, yet we are afraid of becoming overpopulated.

For centuries the so-called agrarian problem (we call it the farm problem) was of vital importance in the Czar's Russia. In

spite of the vast stretches of land, the poor peasantry was always hungry for a piece of land, hence the slogan "Land and Liberty." Thousands were executed for this slogan and many were exiled.

The contemporary ideal about a Great Society should impart new courage. No matter how far away the shining light is, we are coming closer to it. — *J. Kleiner, Hightstown, New Jersey*

GREAT BLUE HERON

My husband came home from a trip to town the other day with the surprising report that a Great Blue Heron had flown across the road almost on top of the car. This Great Blue Heron, you know, is the large, long-legged bird many people speak of as a crane. Neither of us thought they wintered here, but a quick check of the bird watcher's report in the daily paper showed the heron in the latest bird count, and Peterson's Field Guide to Birds says they may winter north to the Great Lakes and southern New England.

We have these huge birds on our ponds in summer, and although we know that they eat fish, we like to have them because we are fascinated by the unbelievably slow and awkward way in which they fly, and by their almost perfect camouflage. I can be watching from the kitchen window and will suddenly see a heron in a spot where I would have sworn no bird was standing. I would love to see one in the winter. — *Mrs. Dora M. Coates, Mount Morris, N.Y.*

A REPLY

I read the letter headlined "He's Mad" in the March issue. It was signed "Burned up" from Massena, New York.

There could exist, I suppose, some sort of median between featherbedding on a railroad and paying a farmer to produce surplus food. But does there really? I don't think so! Never again will we see the woodburning steam engine chugging along up the valley. It's all diesel today. Therefore, there is no practical use in maintaining a fireman on the train, when he might serve a very useful purpose in some other position.

Now about the farmer who produces surplus food. I must admit that this is not an easy problem. However, we must keep in mind that no country in the history of the world has ever fallen flat on its face because it had too much food!

And there are countless millions the world over who go hungry. Did you ever think what a great world this would be if everyone pulled together, as we do here in America?

Some people say that by 1975 there will be no surplus, and supply will equal demand; in 1976 there could be a shortage of food. Wouldn't it seem odd to have to go to the supermarket at 7 a.m. to get what you want before someone else did? As far as working hard for his money, I wonder if our burned-

American Agriculturist, May, 1965



Florida's Champion Milk Giving Jersey Eats Golden Isle Citrus Pulp

Golden Isle Citrus Pulp, the quality feed that's higher in total digestible nutrients . . . rich in calcium content and other minerals essential to milk production, growth and skeletal development, not only makes champion milk producers, but costs less than similar carbohydrate concentrates.

Golden Isle Citrus Pulp is a dry feed that absorbs water quickly, encourages your cows to drink more water and produce more milk. Golden Etta Commando Favorite, Florida's Champion Jersey, produced 11,980 lbs. of milk and 581 lbs. of butterfat as a 3-year-old in 305 days. Total production of this champion amounted to 15 times her body weight; a lot of quarts in any dairyman's league.

Order Golden Isle Citrus Pulp for your cows today and watch their production increase. Order through your feed dealer or through our sales agent, Feed Sales, Columbia Nitrogen Corp., 315 Madison Avenue, Tampa 2, Florida. Citrus Product Sales, Minute Maid Company, Orlando, Florida.



Golden Etta Commando Favorite
owned by Mr. B. W. Judge, Jr.

up friend from Massena ever milked a cow at five in the morning, or plowed till midnight, or helped a cow to calve at 3 a.m.? You see, we farmers work for what we get, too!

But we get more than our city cousins do. We get intangible compensations that no pay check in the world will ever equal. There is something special about the spring breeze blowing in one's nostrils, carrying the odor of the thawing barnyard and the fresh, sweet smell of the new-plowed earth.

There is the innocence of a newborn calf, the gleam in the eyes of its mother, the small child who gazes wonderingly at the whole situation. They all instill in the heart and soul of a man a certain sense of dignity which will never be found behind the workbench at the factory; they give a man a feeling of closeness to his Maker, and an understanding love for the rest of the world.

Too many of our city cousins forget that some time in the past their forefathers tilled the soil for a living, and that the country cousins who do so today are responsible for the abundance of food and fiber which has been bestowed upon them. Perhaps if our city cousins spent some time on a farm they could begin to understand what I mean. — *Benjamin F. Cady, Jr., Boonville, New York*

TAX CHECK

We have been paying Federal income taxes for years and never had our report questioned before. So I was surprised when a treasury agent telephoned, about a year after the 1963 returns had been mailed, that he wanted to check our 1963 report.

I asked him what proof he wanted. We have always done our business by check so I asked if our cancelled checks would be enough. He said "no," he wanted to see our itemized bills of expenses claimed as deductible business expense or capital outlay, also tax and insurance receipts, statements from the bank or anyone else who had paid us interest or dividends, and statements from U.S. government of Soil Bank or diversion payments. He also wanted to know why our 1963 income was less than our 1961 and 1962 incomes. He wanted to see our copies of 1963, 1962, 1961 income tax reports.

He was courteous, but very businesslike, and he wanted proof.

Fortunately, I'm like the man



"Oh good! You found it!"

American Agriculturist, May, 1965

who believes in wearing suspenders with his belt. I had saved the itemized bills, as well as the cancelled checks, so I was able to account for expenses claimed as deductible. He did not say he was satisfied, but a month or so later I received a letter telling me they had accepted my 1963 report as correct.

My object in writing this letter is to help our fellow farmers whose reports may be checked this year or in the future. Even if you keep accurate accounts and do business by check, demand itemized bills for all money spent and keep them for at least three years, also your copies of income tax reports. Save your cancelled checks, of course, also statements from your dairy

co-op, or from anyone else who buys of you, as well as from your bank, Agway, etc., if they pay you interest or dividends, and of any government farm payment you receive.

You may never need them, but if Uncle Sam decides to check on you, they certainly save a lot of argument with the treasury agent, and they may save you money, too. — *Mrs. H.R.B., East Aurora, New York*

DOESN'T BLAME HIM

Hurrah for "He's Mad" in the March issue!

I am a farmer and I don't blame him for being mad. These

farm handout programs are the rottenest Communist-inspired thing the government has worked out. They'll get Medicare and a few other programs in and we'll be a total Communist State.

However, for the benefit of the man from Massena, let me say that no man who is a real farmer would accept any of these handouts . . . and very few do. Most of the recipients are city people or others who never have been real farmers and buy farms to live on, and receive the taxpayers' money to pay their taxes with.

In other words, you and I . . . city man and farmer . . . are helping to support them. — *Albert H. Mead, Delmar, New York*

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Snip fly bands go up in a matter of minutes with staples or tacks. House flies are attracted by the bright red color and the chemical bait. They land on the Snip bands, feed for a minute or so, then fall off dead.

Impregnated with new Dimetilan® insecticide, Snip bands have a killing power that lasts throughout the season to control fly populations.

With Snip, there's no mixing, no spraying, no mess. All it takes is one band per 100 square feet of ceiling area and house fly problems are solved . . . for the entire season.

You can use Snip fly bands in all farm buildings . . . milk houses, dairy barns, calf barns, loafing sheds, stables, pig parlors and poultry houses.

Here's what some farmers say about Snip: "The fly bands continued to kill until November when it got cold. I think they are the only fly control to use in the milk house."

"A very neat way to kill flies without any fuss or mess. A good fly killer."

"I have always had flies in the calf pens, but I haven't had any since I started using Snip fly bands."

So order your supply of Snip fly bands now, get them up early, and you'll go through an entire season without an annoying fly problem. Snip fly bands are available in convenient carry-cartons containing 25 bands. Look for Snip at your supplier.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

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FARM DOLLAR GUIDE

FILL FORAGE PIPELINES emptied by drought. Walk over hay fields, especially new seedings, and check stands . . . plow for corn those with thin stands. Sudan grass, sudan-sorghum hybrids, and forage sorghums will provide roughage earlier than corn. Consider using oats for pasture, low-moisture silage, or hay.

Cut alfalfa hay early for top quality and weevil control. Fertilize with 400 to 500 pounds of 0-15-30 per acre. Deep-rooted legumes well fertilized are good drought insurance.

PLANTING CORN EARLY PAYS. Because days are longer in the spring, a week of good growing weather in May boosts the yield as much as two additional weeks of frost-free weather in the fall.

SELLING MEAT ANIMALS? Here are a few suggestions: (1) Sell dairy cows whenever production drops below the profit level. They can "eat their heads off" while you wait for a better price; (2) It's not usually profitable in the Northeast to feed for the "prime" market. Aim for average good to choice quality; (3) Plan to market hogs at 200 to 230 pounds. They should reach this weight at 5½ to 6 months; (4) May lamb price looks good. Aim to sell at around 90 pounds - 3 to 4 months of age. U.S. lamb crop (1964) was 7% below '63, and 11% below '58-'62 average.

GUTHION no longer has any label restriction on the 25 percent formulations in eastern sections of the country for use against alfalfa weevil. Do not apply more than once per cutting or within 21 days of harvest. **LOROX** has received registration for pre-emergence weed control in potatoes.

PRE-EMERGENCE WEED KILLER Treflan has been cleared by USDA for use on 16 crops, including tomatoes, dry beans, snap beans, broccoli, cauliflower and cabbage. Incorporated into the soil, it kills weed seeds as they germinate.

SUGAR BEET GROWERS in New York can find recommendations on cultural practices from A to Z in fact sheets on this crop available from Professor Tom Scott, Caldwell Hall, Cornell University, Ithaca, N.Y.

ALDRIN and **HEPTACHLOR** are still registered for use against such insects as northern corn rootworm, white grubs, and wireworms in small grain and corn fields. Keep in touch with your county agent concerning latest insecticide uses.

CHECKED YOUR FIRE INSURANCE policies lately? If not, chances are you are under-insured. Don't get your name in the paper because of fire and be "partially covered by insurance." Might not be a bad idea to check life insurance policies while you are at it!

CALIFORNIA FARMERS continue to "see red" over Federal government decision to keep out Mexican laborers. Northeastern farmers should be interested because move indicates attempt to cut U.S. unemployment by "blackjacking" farmers into hiring domestic unemployed whether or not such potential farm workers are worth minimum wage set by Federal legislation.

GROWING WALNUT TREES can be profitable in some areas of the Northeast. Supplies are scarce, and demand very heavy for this wood, and the trees grow fast. Check with Extension Forester, Cornell University, Ithaca, N.Y. for details on planting and care.

NEW IDEA in applying pesticides reported by USDA. A new nozzle permits spraying liquid chemicals undiluted, with much smaller droplets. Can result in great savings in spraying from aeroplanes. Big use possible in Northeast is applying malathion to control alfalfa weevil.

IT IS PREDICTED by the Poultry Survey Committee of the American Feed Manufacturers Association that U. S. farm egg prices for 12 months beginning April 1 are likely to average 1 to 2 cents below year earlier. Also, U.S. broiler prices for last 9 months of '65 are predicted to average slightly below the 14.2 cents for the same period in '64.

TESTS at Beltsville, Maryland, on pruning bearing peach trees give these conclusions: (1) Yield on trees trimmed in dormancy was better than later trimmed; (2) Yields on trees not pruned were about same as those trimmed when dormant but peaches smaller; (3) Peaches on trees pruned at full bloom or shuck fall were ripe earlier than on trees pruned when dormant or three weeks after shuck fall.



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than many other insecticides, SEVIN is lower in toxicity to humans, livestock and wildlife, including fish and fowl. You need no special protective clothing when you apply SEVIN. Just use normal precautions. You can spray or dust crops adjacent to pastures, fish ponds or streams.

You can be a good neighbor...

and reduce residue hazards for everyone while you are a good farmer and control crop insects with SEVIN. Ask your nearby supplier for the new list of recommended uses. Or write Union Carbide Agricultural Chemicals, 270 Park Avenue, New York, N. Y. 10017.



SEVIN is the registered trade mark of Union Carbide Corporation for carbaryl insecticide.

Shoot down Those

VEGETABLE INSECTS

by Arthur A. Muka*

GARDENING ENTHUSIASTS and commercial vegetable growers have much in common when they grow the same vegetables... the problem of insect pests. This article deals with six of the more important insects of concern to vegetable growers in the Northeast. Of necessity control suggestions for the two groups of growers will vary, but many parts of the problem are the same.

Know The Pests

Each of the pests on our crops goes through a life cycle. The life stages of most of the six pests are in a four stage cycle... egg, larva, pupa, and adult. It is important that each of the stages as well as the type of injury caused be known to the grower. Some insects reproduce very rapidly and have many generations per year; others have only one or two generations each year. Effective insect control involves the correct chemical used in the right amount at the right time and in the right manner.

Commercial growers should make sure their sprayers are all serviced, calibrated, and in good working order before the busy spray season starts. Home gardeners would do well to own a small (2½ gallon) pressure sprayer for garden and home grounds insect and disease control.

The following insects are not the only ones we can expect in vegetable production, but are the rascals which will probably cause the most damage. They are: the striped cucumber beetle, the cabbage root maggot, cabbage worms, cabbage aphids, the European corn borer, and the corn earworm.

Cucumber Beetle

The striped cucumber beetle is a pest of cucumbers and melons. The adult is one-fifth of an inch long and is yellow with a black head and three longitudinal black stripes on the back. The first and greatest damage results from adults feeding on stems and seed leaves when the plants are pushing

through the ground before true leaves develop. Later in the season when the second generation of beetles appears the leaves, blossoms, and fruit of the vine crops may be seriously damaged. Even greater losses are caused by the insect as a carrier of a bacterial wilt disease... a disease that overwinters inside the body of this beetle.

Commercial growers should be prepared to use a power sprayer or duster to control this insect as soon as the plants are starting to emerge. Two to three timely early treatments to control the overwintered adults will do much to reduce a second generation problem in August.

Use of the following materials is suggested: Sevin, Thiodan, or parathion. Rotation of insecticides with Sevin is suggested to avoid a mite or aphid build-up. For exact per acre amounts of these and other materials mentioned, consult the 1965 vegetable production recommendations available from county agricultural agents.

The home gardener might plant a few hills of pumpkins (the insects prefer this plant) interspersed with the other vine crops. The emerging pumpkins will attract the beetles, and chemical control with the insecticides Sevin or Thiodan will eliminate most of the insects before damage occurs on the adjacent cukes and melons.

Cabbage Maggot

The cabbage root maggot is a small fly in the adult stage which lays its eggs at ground level on the stem of plants in the cabbage family... including radish and turnip. The damage is caused by the larva or maggot stage feeding on the stem or root; radishes and turnips are injured by tunneling. There are three generations per year, and the first brood is usually the most destructive.

It is suggested that commercial growers who feel they may have some insect resistance building up use Diazinon as a row treatment in the seed bed and in the transplant water or as a row drench. Otherwise, where effective, materi-

(Continued on next page)

* Department of Entomology,

Cornell University



Striped cucumber beetle.



Cabbage aphids on broccoli spear.

American Agriculturist, May, 1965

als such as aldrin or dieldrin may be used.

In the home garden, granules containing Diazinon may be sprinkled into the seed furrow at planting, or the material may be put into the transplant water. Avoid placing new untreated soil on top of treated soil around the base of the plants.

Cabbage Worms

A number of green worms appear on cabbage and related crops. The two that are most common and are of greatest importance are the imported cabbage-worm (white butterfly adult) and the cabbage looper (adult is a brownish-black night-flying moth). The imported cabbageworm caterpillar is green and velvety; the cabbage looper caterpillar crawls with a peculiar motion much like an inch worm, and when full-grown is about 1¼ inch long.

Commercial growers can use Thiodan up until 7 days before harvest on cabbage and broccoli, but on cauliflower the label stipulates use only up until edible parts start to form. A seven-day parathion schedule has given good results also.

A new material, Matacil . . . introduced in 1964 under an experimental label . . . will be recommended if full label is granted in 1965. Remember, endrin must not be used under any circumstances in any stage of growth because the label has been withdrawn.

The key to success for the home gardener is weekly spray applications of materials such as Thiodan or Sevin.

Cabbage Aphids

The cabbage aphid (or plant louse) is usually most abundant and destructive in seasons of drought, when its feeding (combined with unfavorable growing conditions) often stunt or ruin a crop.

A control program on a regular schedule beginning when the aphid colonies are just starting is the best way to protect the crop. Commercial growers will find that Systox, TEPP, Phosdrin or Diazinon will control this insect. A new aphicide, Meta-Systox-R, is available in 1965 and may be used up to 3 times per season on cabbage, cauliflower, and Brussels sprouts . . . and once on broccoli.

The gardener should start his program when the first aphid colony is seen starting to cup the cabbage leaves. Follow with two or three sprays of Thiodan at weekly intervals, repeating as needed.

Corn Borer

The borer is a two-generation pest of corn throughout the Northeast. While corn is the main host plant, other plants such as peppers, potato, beans, dahlia, hollyhock and pigweed may be attacked. Early maturing corn varieties are usually the most heavily infested.

Adult yellowish-brown moths lay their eggs in a flattened mass on the underside of the leaves. The newly-hatched borers feed first on the bottom leaves, then move up the plant to the whorl.

American Agriculturist, May, 1965

Commercial growers may use either Sevin or DDT applied with a specially-designed high-clearance sprayer when borer leaf feeding scars are seen (usually at mid-whorl stage). The level of the borer population will determine how many sprays should be applied. The most important spray is applied when the tassel is just visible in the whorl cup. Sweetcorn treated with DDT, whether from commercial or home plantings, must not be fed to dairy or beef cattle. Second-generation borers are controlled in late July and August by the earworm spray program.

Home gardeners should thoroughly spray their corn in the late whorl stage (just as tassels become

visible) and once again if the emerging tassels carry any live borers. It is suggested that the wettable powder form of DDT be used to avoid burning the corn plant. Commercial growers who use the liquid DDT use a special corn-safe formulation. Sevin is not formulated in a true emulsifiable concentrate, but is readily available as a wettable powder.

Corn Earworm

The earworm, unlike the borer, confines itself to the ears of corn. The tan night-flying moth lays its eggs on the fresh silk, and under warm conditions the eggs hatch in 2 days. This insect is the familiar large worm found in the tip of the

ear from mid-July until killing frost during hot seasons. In cool seasons the insect may not become abundant until late August.

The same insecticides used for corn borer are also suggested for earworm control. Commercial growers often must apply 6 to 9 sprays to protect fresh market corn. The critical period of coverage is when the field is in 50 percent silk.

Home owners should make two to four applications directly to the silk at 3 to 5 day intervals, starting just before 50 percent silking (when half the ears show silk). Use the same precautions when using DDT for earworm control as for borer control.

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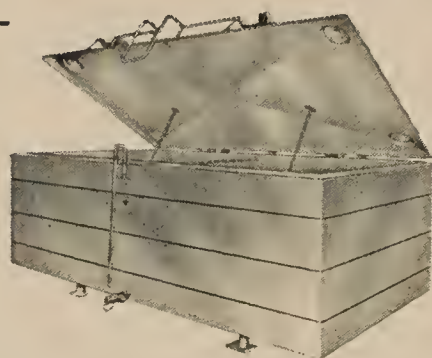
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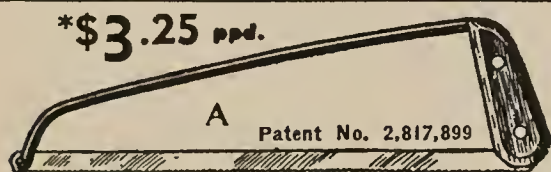
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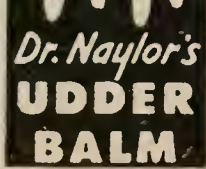
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KNOCKOUT



FOR FLIES

by John G. Matthyse*

WE HAVE the tools at hand to give our cows real relief from flies on pasture and in the barn during the 1965 season. New sprays and application methods were used by some dairymen last year; their good experiences should lead to wider use this year.

At Cornell we continued experiments on Vapona and Ciodrin oil base stock sprays applied by hand spray guns as well as "in the doorway" automatic sprayers. The combination of these two fly killers gave maximum protection. Using a mixture of one percent to .25 percent Vapona in stock spray oil at 2 ounces per cow daily, we had excellent control of face flies and horn flies all day.

An additional bonus was control of house flies in the barn by continuing residual fumigation by the Vapona in the spray. The sprays were applied in the barn immediately after morning milking, thus sufficient Vapona was misted onto stanchions, floors, etc., to produce this fumigating effect even though the spray was directed at the cows.

The horse fly numbers were low in 1964, even on unsprayed check herds, so no information was obtained on these blood suckers. Older type sprays . . . for example, those containing pyrethrum, synergist, and repellent . . . were less effective although they did give considerable fly relief.

Two Parts

A dairyman thinking about buying fly spray and sprayers should consider first what he wants in the way of fly control. I hope he wants protection of his cattle against flies on pasture as well as relief from flies in the barn at milking time.

Fly control in the barn and on pasture are two very different things, and should be considered separately. Fly control in the barn is easy and cheap, but fly control on pasturing cattle takes time and money. Don't be fooled into believing that a few ounces of fly spray fogged in the whole barn will protect cattle subsequently on pasture.

It requires 1 to 2 fluid ounces on each cow of a good (and somewhat expensive) oil base stock spray to protect pasturing cattle. More laboriously, the job can be done by emulsion in water spray by means of a compressed air sprayer at 1 to 2 pints of spray on each cow.

So, if you want to protect cattle on pasture you must adequately spray each individual cow . . . but how? The easiest and most modern way is by an "in the doorway"

automatic. This is a ring of nozzles in an arch through which the cows pass as they are turned out to pasture.

A motor and pump keeps the spray circulating, and a "burglar alarm" proximity device, or an electric eye, switches the spray through the nozzles as the cow walks through. No labor is required and the dairyman can busy himself in milking without worrying about the spraying. Such a system is admirably adapted to the outlet door of milking parlors, but also is fine for stanchion barns.

Cost is high, varying from over \$100 to almost \$300, depending on the brand you buy. We worked with a machine devised by Agway in 1965 and had excellent results all summer with a minimum of machine breakdown.

We visited about once a week to check the machine and count flies on the pasturing cattle. There were a few problems when first installed, but soon the cows were being treated automatically every day with no attention to the sprayer. One to two ounces of 2 percent Ciodrin was used per cow per day, resulting in almost complete elimination of annoyance by face flies and horn flies on pasture.

We have also worked for several seasons with foggers (we used the Halaby Klip-On Fogger) applying 2 ounces of spray per cow as a mist by adjusting the machine for maximum output rate (4 to almost 5 gallons per hour depending on the particular machine). Figure this out and you see that 12 to 15 seconds is required to put 2 ounces of spray on a cow. Are you willing to spend this much time on each cow every morning to obtain protection against flies on pasture?

You must walk along behind the cows, stop at each cow and direct the spray between the cows to reach beyond the shoulders, direct some at the belly, sides and back, and some at the legs and rear. You must move fast to do a job of covering one cow in less than 15 seconds, but it will pay off in additional milk in the pail.

Our cooperators used the 1 percent Ciodrin plus .25 percent Vapona oil base stock spray by this method and had excellent control of face flies and horn flies all summer. The same job can be done by a hand-operated spray gun such as the Hudson Hydragun, but it is difficult to get good cow coverage and it is time-consuming.

Suppose you are willing to forget the flies on pasture. Then a cheap and low-labor program will be satisfactory. Fogging the barn daily with pyrethrum, Vapona or

(Continued on next page)

American Agriculturist, May, 1965

Dibrom barn fogger spray will give you peace during milking. It is much better to have a thorough barn spraying done in early June also, before houseflies become abundant, using 1 percent dimethoate (Cygon).

No serious resistance to Cygon has been reported yet, so one (or at most two) sprays (second one in middle or late summer) of all walls, ceilings, etc., will give season-long control of houseflies. Fogging may still be necessary to kill flies that come in with the cattle in the evening.

Winter Use

Recent research has shown that these fogging machines can also be used in the winter to control lice with Ciodrin emulsion, or Ciodrin and Vapona stock spray. We appear to be approaching the time when one machine and one spray formula will solve the dairyman's summer and winter pest problems. At least, investment now in a barn fogger for fly control may pay added dividends in double use next winter for louse control.

There are other good ways to control flies. "Sprayed-on" liquid baits of corn syrup and Vapona will control face flies and houseflies both in the barn and on pasture, if applied as a spot to the heads of every cow every morning. It is also necessary to apply a spot to the wall about every three feet once a week to complete the kill of houseflies... a hand sprayer designed for this job is necessary. This is a sprayer with a stop on the plunger rod that can be set to deliver the correct amount (1/5 ounce) with every single stroke.

The new Vapona resin strips

will kill all flies in a barn through fumigation. You must use enough strips to fumigate the whole barn, and this is expensive. These strips are especially good for milk rooms. Baited ribbons (Geigy Snip Fly Bands) also work well, but are expensive when enough are used to do the job. Either of these methods are sure to fail if you economize by trying out just a few of them first. The correct total number, based on square footage of the barn, is necessary for success.

Dry scatter baits kill plenty of flies, but seldom clean up a fly problem. You must use enough and replenish frequently. Be careful not to place baits on top of bulk tanks or anywhere they can fall into milk... it is best not to use

dry scatter baits in milk rooms. Pyrethrum fly spray is still best for use in the milk room, or Vapona resin strips.

How about cattle that do not come into the barn... heifers, dry stock and beef? In the Northeast such cattle usually have to simply live with their flies, and with the pinkeye that flies can transmit. This is unfortunate, because backrubbers will completely control horn flies and help to cut down the face fly problem.

Automatic "on pasture" sprayers are being developed that may also solve the problem. We worked with several last year that were installed in a fence opening that the cattle had to pass through on their way to water. Vapona-

Ciodrin stock spray gave us very good fly control, but the machine was troublesome. I do not know of a trouble-free machine on the market as yet for this purpose, but undoubtedly one will be developed.

Remember that milk is sacrosanct... absolutely no pesticide residues are allowed in it. Use only pesticides labeled specifically for use on milking dairy cows, and follow directions exactly. Use your head and do not allow even these pesticides to contaminate milk as "fall-out" from air during spraying. Keep milk covered, and never spray during milking or when milk is in the stable... and never when there are uncovered utensils in the area to be sprayed.

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CASE FOR HAYLAGE

Chet Gordon, USDA researcher at Beltsville, Maryland, continues to make the case for haylage in the Northeast. Here's how he sums it up:

1. Good haylage is equal to good hay in feeding value (on a comparable dry matter basis).

2. Ensiling hay crops is much less dependent on weather than is baling them after field curing. Northeastern weather is just too undependable in June of most years to make top quality hay for a big herd.

3. Harvesting silage is efficient in terms of equipment and materials handling. Handling silage from "meadow to mouth" can be entirely mechanized with existing equipment.

4. The higher the yield of any forage crop, the harder it is to get it dry for hay. As farmers push toward more crop per acre, they intensify their field curing problems... another reason favoring the incomplete drying offered by ensiling.

He cautions, though, that low moisture hay crop silage (particularly in conventional silos) requires good management. If it's not done right, a farmer may end up with a conventional silo full of spoiled junk only fit for a manure spreader. However, there are hundreds of farmers who have proved it can be done.

American Agriculturist, May, 1965

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Lubricating systems

(Continued from page 12)

travel between the openings controls the amount of lubricant which is delivered to the bearings.

Advantages of this type system include:

1. The plunger stroke will not continue if there are any line stoppages caused by plugged bearings or plugged lines. Thus stoppages can be readily detected.

2. No extra metering valves are required because the pump serves as the metering device.

3. The pressure in each line is only the amount required to lubricate the bearing to which the line is connected.

4. A broken line does not affect operation of the remaining lines... but this break is not readily detected by pump response.

How Expensive?

How expensive are these systems? Quotation of exact prices is difficult because different machines require a different number of fittings, and vary in the complexity of their installation. As a very general rule of thumb, factory-installed systems range from \$3 to \$6 per bearing, depending upon the features built into the particular system.

Thus, system cost for a combine or corn picker may seem relatively high. Against this, however, the possible savings must also be considered.

For example, about one hour is normally required for a thorough

grease job on many combines; for adequate lubrication the job must be done once each day. Multiply your number of combining days by a reasonable hourly rate for your time and the time of the machine. In most cases, only a few seasons' use will pay for the central lubrication system.

Furthermore, there are several other benefits. Centralized lubrication avoids the disagreeable and inconvenient chore of greasing a piece of complex machinery. The need to crawl under, reach inside, or climb over the machine to reach all the lubrication fittings is eliminated.

In addition, the usual tendency is to pump each bearing full of grease and hold off as long as possible for re-lubrication. This practice often damages the bearing seal, or at least subjects the bearing first to an over-supply and then to a shortage of lubricant. In a centralized system each bearing is supplied a small amount of lubricant at frequent intervals. This arrangement lengthens bearing and seal life, and reduces repair expenses.

And don't forget the added trade-in value of a machine equipped with centralized lubrication. Not only does it offer the prospective purchaser the usual desirable benefits during his ownership of the machine, but it also shows that the machine has been adequately lubricated during its use to date, and should therefore be in the best possible condition.

Cabbage gets status

(Continued from page 11)

along the bottom of the walls. Now we've got cold air coming in at the top and settling downward, the way it should be." The Colbys plan to build more permanent air ducts along both sides of the storage to replace the plastic sleeves now in use.

Pallets used here are standard 20-bushel ones, handled by a fork lift on the back of a regular farm tractor. "By using pallet boxes, we save two to three dollars a ton bringing cabbage into storage over the old method, and another like amount taking it out of storage," Merton says.

The packing room is also insulated, and the people working on the packing line are warmed by a battery of 22 heat lamps above and behind them. A barn gutter cleaner removes trimmings and elevates them to a truck that takes them to the Colby dairy herd, where they are fed to the cows after the morning milking... at the rate of about a ton of trimmings a day to 100 cows.

"We used to store cabbage in three or four places," Merton says, "and then warm up the storage so people could stand it to pack. Warming up cabbage doesn't do it any good; with our present arrangement we can have warm hands and cold cabbage!" Harvest ended just before Thanksgiving in 1964, and packing started a week after that... continuing until late March.



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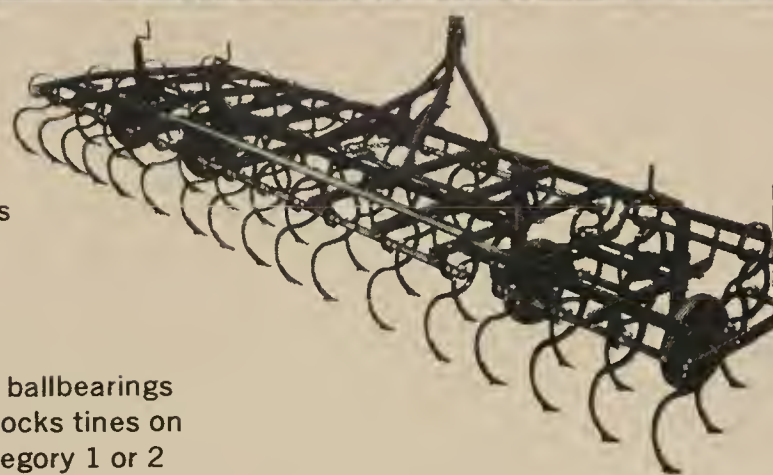
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THANKSGIVING HAY

by Bob Cudworth

IN A DRY YEAR, you may even bale hay at Thanksgiving time! At least that's what Ernest Skellie and his father John of Battenville, New York, did for their 38 milkers in drought-ridden Eastern New York this past November.

With any sort of roughage being worth its weight in gold to a dairyman, the Skellies found that a few meadows (bromegrass and alfalfa) had produced some growth in the fall. So, in Thanksgiving week they started cutting and baling. And even though it started to rain, they kept on going until they had 500 bales of hay.

Getting It Dry

They put some of the bales in the milking part of the barn, up ahead of the cows. The rest they put in the mow, broke open, and spread the hay around so it could stay aired. They fed it right away. With this, plus their earlier hay and silage, plus corn meal from government corn, the Skellies think they will just about make it through the winter.

Last year was the driest one that John ever remembers for this farm along the Batten Kill in Washington County. Since the corn was stunted from drought (even too dry for the chemical weed killer to work), the Skellies didn't use any of their corn for grain. They put it all in the silo and fed it out carefully. John calls it "awfully good silage, what there is of it . . . and awfully dry."

The Skellies have fed a couple wagon loads of corn silage daily, with 400 pounds of corn meal on top of the silage. They feed this in the exercise yard, letting the heifers feed first. Corn meal is fed in the mangers too, to help piece out somewhat frugal feeding of hay.

"I used to take what hay the cows didn't clean up and put it down for bedding," said John. "But this year I carefully scrape it up and feed it to the heifers. This poses another problem, and that's bedding. With no oat straw to use, and no hay to waste, we've been buying sawdust . . . and even that's expensive and hard to get. So, being light on bedding, the elevator on the barn cleaner has trouble elevating the manure."

The Skellies tend to feed quite heavy on grain to their Holstein

herd, going as high as 35 pounds a day to some producers and averaging about one pound of grain for each 2.7 pounds of milk. The herd, many of which are registered, has been averaging 14,000 pounds of milk and 535 of fat.

"What will we do this coming year? I'm not sure," John comments. "We don't have any very

good remedies when we don't get any rain. One thing we'll probably do, though, is to plant more corn."

Feeds urea

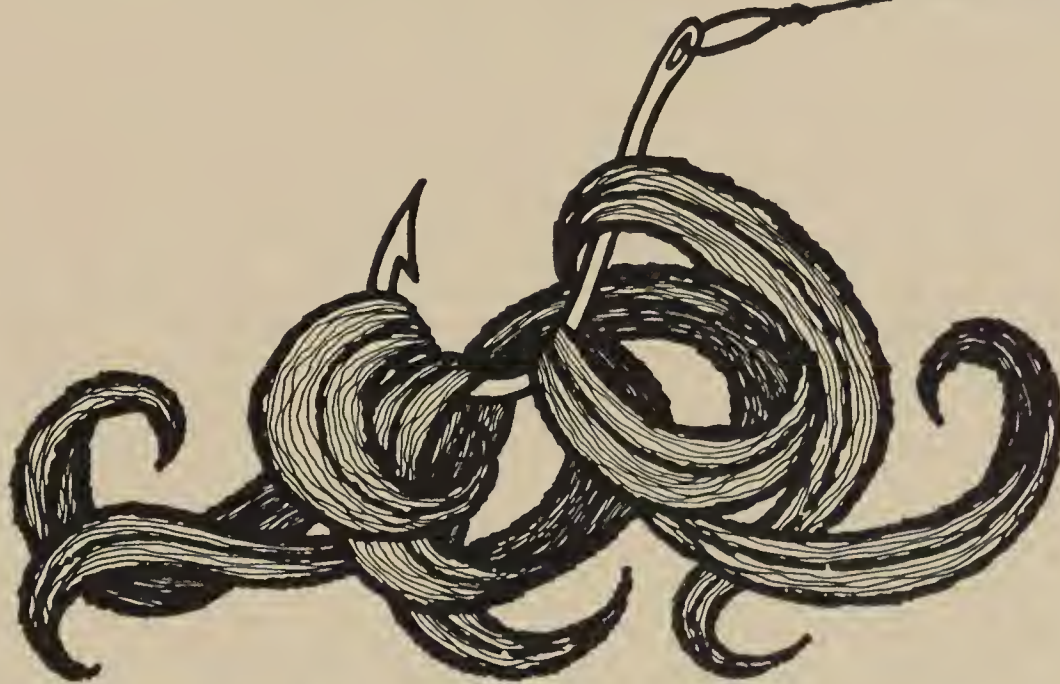
(Continued from page 14)

in free stalls. Bedding is not chopped, merely shaken up into stalls; droppings are pulled out of the stalls twice a day and concrete areas cleaned with a rear-mounted tractor scraper once a day. The Donnans report that it took nearly three times as much straw to bed the herd in free stalls when straw

was chopped versus merely shaken up.

The Donnans have a good-appearing and large conventional stable equipped with an around-the-barn pipeline. But they wanted to expand, and figured they would be better off to abandon the old stable for milking cows and go to free stalls and milking parlor. Bill Robbins of Agway's Caledonia Supply Center helped draw up plans, leaving plenty of room and flexibility for further expansion "if and when."

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Diquat is non-hazardous; used as directed. It would take 20 times the maximum recommended dosage to be at all harmful to fish. It's inactivated immediately on contact with soil, and it doesn't build up in water. In just 10 days (be sure to follow label directions), you can have clear, clean water for irrigation, watering your animals, swimming, or even a fishing hole.



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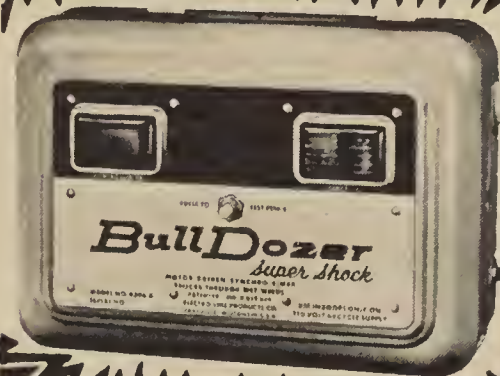
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John Skellie checks over some bromegrass-alfalfa hay

American Agriculturist, May, 1965

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The Song of the Lazy Farmer



Whate'er my neighbor reads or hears is sure to fortify his fears that there's no doubt at all but what the world's completely gone to pot. He points to headlines on page one to

prove that civil'zation's done; the market pages are no joke, he says they show he's going broke; the weather map predicts a storm or says 'twill be too cold or warm; the sports page even clouds his face, it shows his team is in last place. It does no earthly good for me to try to cheer him up, 'cause he insists my lazy happiness is proof that ev'rything's a mess.

Well, I'll admit that it's no trick, especially if your mind is sick, to see dark clouds 'most ev'rywhere, including when the weather's fair. If you are searching just for gloom, you'll find some bugs on ev'ry bloom; for those whose fav'rite color's black, there's almost never any lack of evidence to back belief that ev'ry day is full of grief. But I insist it's also true, although more difficult to do, to find some beauty any place and keep a smile upon your face. That way, you're better company for others and yourself, by gee.

Dates to Remember

May 1 - New York Shorthorn Association Cattle Show and Sale, College of Agriculture, Cornell University, Ithaca, N.Y.

May 1 - New Jersey Hereford Assoc. Annual Spring Sale of feeder calf and commercial beef cattle, Cooperative Livestock Market, Hackettstown, N.J.

May 1 - Maine Maple Syrup Festival Parade, Strong, Maine

May 2 - New York Flying Farmers Picnic Luncheon and

Meeting, Maxon Airfield, Holly, N.Y.

May 3 - Rural Life Sunday

May 4-5 - Third Egg Marketing Institute, Riley-Robb Hall, Cornell University, Ithaca, N.Y.

May 7-8 - New York Association FFA 40th annual Convention, Walton Central School, N.Y.

May 8 - Spring Feeder & Breeder Beef Cattle Sale (all breeds) Altamont Fairgrounds, N.Y.

May 9-12 - American Feed Manufacturers Assoc. Convention and National Feed Show, Conrad Hilton Hotel, Chicago, Ill.

May 12 - New Jersey Agricultural Society annual meeting, Cedar Garden Restaurant, Mercerville, N.J.

May 13 - Feeder Pig Sale, Empire Stockyards, Caledonia, N.Y.

May 14-16 - Third annual conference and seminar, New York State firemen and fire police, Watkins Glen, N.Y.

May 15 - Glen Cove Invitational Sale of Shorthorn and Polled Shorthorn Cattle, Glen Cove Farms, Windsor, N.Y.

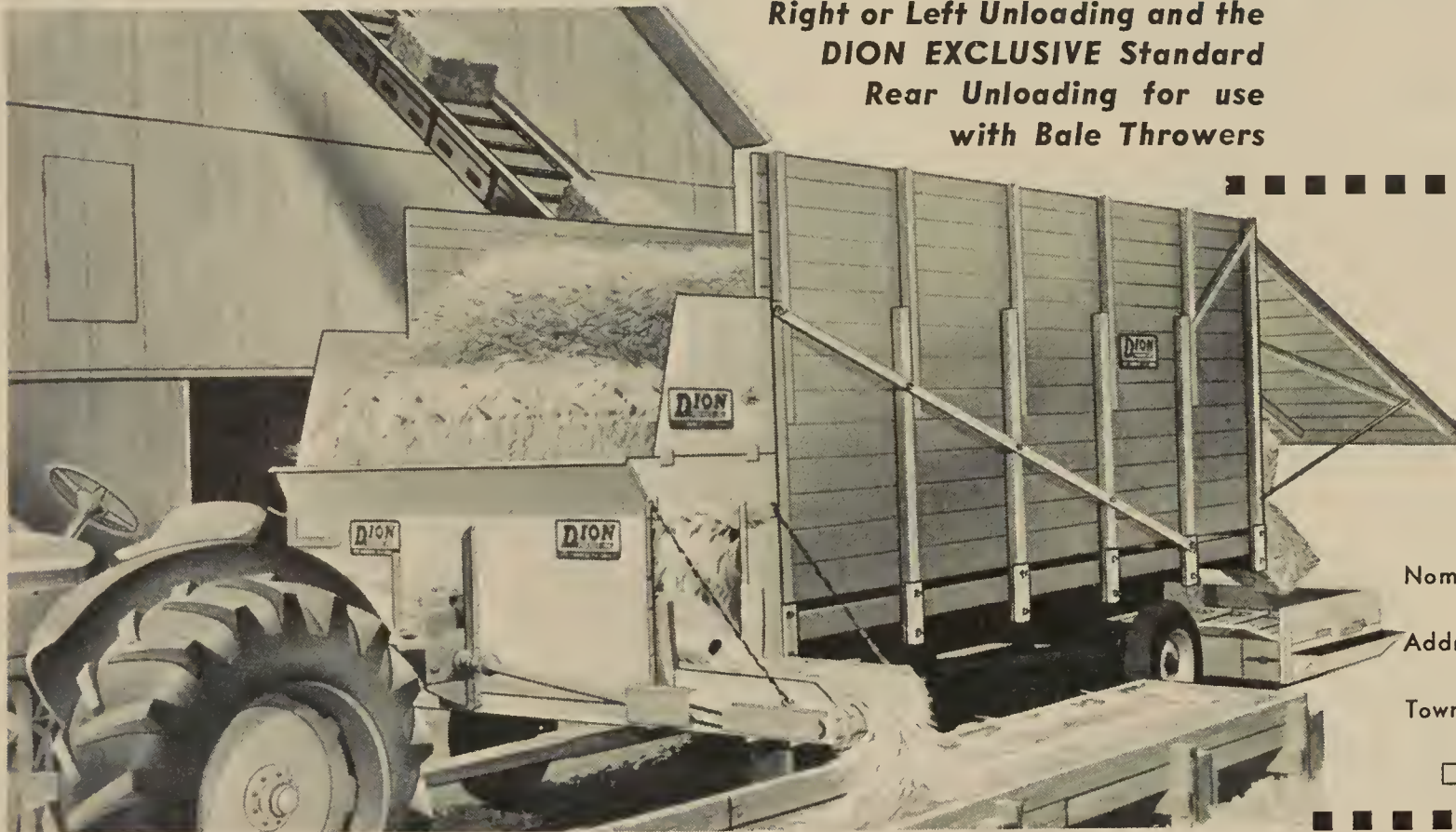
May 19-22 - Annual meeting, American Guernsey Cattle Club, Columbus Plaza, Columbus, Ohio

VIEWPOINT!

Each year an increasing amount of New York State's farm production is being marketed direct to the public through roadside markets. In many cases, where farms stand in the path of "creeping urbanization" the only way a farmer can stay in business is to get a greater share of the consumer's dollar.

At their annual meeting, the New York State Vegetable Growers recommended that the College of Agriculture at Cornell direct more of its efforts in the marketing field toward helping the farmer sell his produce direct to the consumer at roadside markets.

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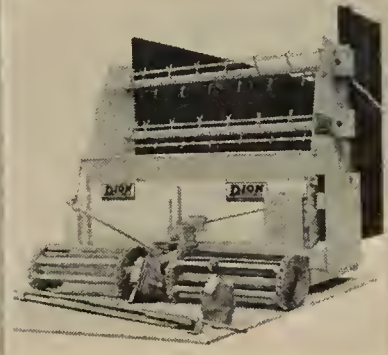
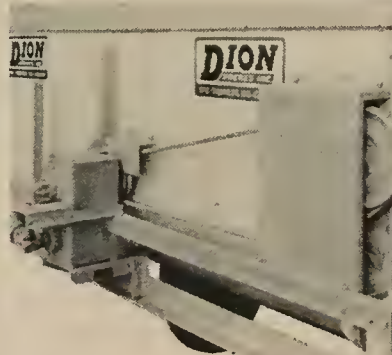
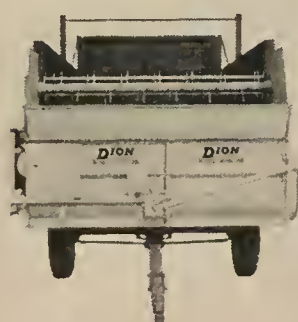
The change for front to rear unloading is made so fast that it is possible to use the Dion unloaders every day for zero feeding, filling silos and unloading boles.

Hardware Kit

Kit and plans for building the box are available for even greater economy. Standard sizes of lumber are used. The front end is supplied completely assembled, greased and factory run-in for long, trouble free operation.

Drive from Tractor PTO or Dion Blower

The PTO shaft can be connected to an independent clutch on the Dion Forage Blower, allowing one tractor to drive both units. A major economy and another Dion exclusive.





NEW SETUP IN EXTENSION SERVICE

by Amos Kirby

New Jersey Editor

MULTI-COUNTY responsibilities are something new in the setup of the New Jersey Extension Service. It is becoming more specialized in order to meet the increased demands of farmers for more specific answers to production and marketing problems.

It all started with a pilot project set up through the cooperation of the State Extension Service in the counties of Gloucester, Salem and Cumberland. This being a diversified fruit, vegetable, dairy and poultry area, each county assigned its agricultural agent to special work in all three counties.

For example, the Gloucester County agricultural agent, Robert Langlois, took on all nursery work, and part of the vegetable work in the three counties. Ivan Crouse, Salem County, specialized in dairying and crops; while Harry Rothman, Cumberland County, moved into the poultry work for all three counties.

Results — The plan has proved a success. It has resulted in greater efficiency, and the agricultural agents have found it a greater challenge. It has also met with universal approval from growers. In an interview with Arley Hoveland, assistant director of the Extension Service, New Brunswick, he explained that the plan has been expanded to include every county in New Jersey, modified to fit local conditions and types of farming.

Here and There

A special vegetable research station for South Jersey is gaining support. Backed by the Vegetable Growers Association of New Jersey, the plan first proposed by Dr. Frank App for the research station is now being carefully studied by staff members of the agricultural college at New Brunswick.

Certified Turf — Most everyone knows about certified eggs, certified seed, purebred cattle, and on and on . . . now comes certified turf.

Under the supervision of the State Department of Agriculture, a number of growers are cooperating in growing certified turf for homeowners and others who like to buy their turf in a pre-packaged form.

There are 13 growers now participating in the program. Last year 227 acres of pre-tested soils out of 275 acres entered were approved. Meeting the requirements for certification isn't easy, but it has great possibilities. The problems include varietal mixtures, diseases, insect and weed problems. Actually, however, there isn't much difference between meeting turf certification and the standards for other certified products.

Market — The market exists for *American Agriculturist*, May, 1965

turf. Driving around New Jersey one finds even pasture land being stripped of sod for highway and embankment cover. In the Central Jersey area are several large operations where sod is being grown on land formerly used for growing potatoes.

Growing a sod crop is a highly-specialized venture. Anyone interested should contact Bill Crans-

ton, Department of Agriculture, Trenton, on what is involved.

Farm Labor

Secretary of Labor Wirtz' order establishing a \$1.30 an hour minimum wage has already pushed the Puerto Rican wage from 95 cents an hour and fringe benefits paid last year to \$1.10 per hour . . . plus a 4.55 percent bonus, plus other fringe benefits . . . to approximately \$1.50 per hour, with a guaranteed 40 hours of work per week.

I asked Joseph Garofalo, manager of the Glassboro Labor Service, the agency that met with the Puerto Rican government, if the new wage rate was a guarantee

that labor would be available. His reply was: "we have no guarantee how many workers will be available when they are wanted."

Talking with growers in a number of counties, I learn that there is no serious objection to higher wages. The big question that goes without an answer is: "Can farm prices be moved up to cover the increased cost of production?"

Fringe Benefits — Speaking of fringe benefits, the Puerto Rican government demands not only better wages but softer living. One of the requirements for 1965 is that pillows be furnished to every worker. This may be a small item, and in most instances pillows have been provided . . . but now it is mandatory.



80 different plug types for farm use alone?

It's to assure the right plug type for every engine and operating need—an absolute must for peak performance and economy! Here are the facts . . .

Spark plugs can't operate at top efficiency if they run too hot or too cool. When they run too hot they cause pre-ignition and excessive electrode wear. And when they run too cool harmful fouling deposits develop. That's why Champion builds plugs to match the heat range of an engine and the work it does.

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if all engines had similar heat range characteristics. But they don't. Heat ranges differ not only with engines but also with the work they do. That's why Champion builds over 80 plug types for farm use alone—each type designed to give top performance in one or more farm engine makes or models. This wide choice guarantees there's always a Champion precisely matched to both your engine and its operating needs.

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Why does Champion make so many?

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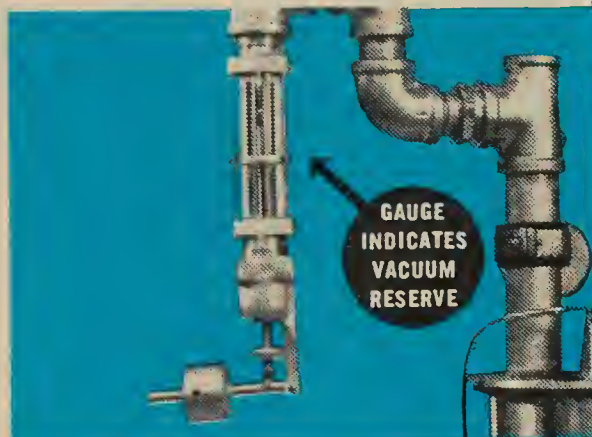
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Hitch action with fully-mounted plow transfers weight from front to rear tractor wheels. Weight is added on front frame, but no weights are used on tractor wheels.



Trailing plow transfers only limited amount of weight from front to rear tractor wheels. Cast iron weights are added to rear wheels.

HOW TRACTORS PUT ON WEIGHT

by Wes Thomas

YOUR TRACTOR must be adequately weighted if you are to obtain full benefits of today's high-powered engines. Insufficient weight permits fuel-wasting wheel slippage, and reduces operating safety.

The effective weight on the rear wheels determines how much your tractor can pull in the lower gears. The drawbar pull will be from 50 to 70 percent of the effective weight on the rear wheels, depending upon the type surface on which the tractor is operating. The effective weight is the total weight of the basic tractor, wheel weights, tire fluid, and weight transfer by hitch-mounted implements. Generally, there is little you can do about the operating surface, so slipping must be controlled by adding weight.

The various makes of tractors vary considerably in basic tractor weight in proportion to engine power. The high power-to-weight ratio tractors require more added weight than do the tractors having a higher basic tractor weight. In most cases, the high power-to-weight tractors depend upon weight transfer as a result of hitch

action to provide a portion of the effective rear wheel weight.

Added weight can be either iron or liquid. In many cases, both are needed. Filling the tires with liquid — a mixture of water and calcium chloride to prevent freezing — is a job for your dealer or tire service store. Rear tires are normally filled from 75 to 90 percent full. Ninety percent fill is heavier, but the tires have less cushioning effect since there is little air space left.

Liquid Permanent

The solution does not occupy any additional space on the tractor. However, because of the special filling equipment required, it should be considered a permanent part of the tractor and not be removed when the tractor is used for light-draft jobs.

Since calcium chloride is very corrosive to metal parts, do not use your regular tire gauge to check the pressure. Possible ways of checking pressure of solution-filled tires include:

1. Use a special gauge, which your dealer should be able to supply.

(Continued on next page)

American Agriculturist, May, 1965

2. Place the tractor on a smooth, hard surface and inflate the tires until you can just get a finger under the outer end of the lowest tread bar.

3. Use a special template available from some tire companies. The template, when placed beside the tire, measures the height from the ground to the rim.

Metal Weight

Cast-iron wheel weights are frequently used in addition to liquid ballast. This portion of the weight can be added or removed to suit varying traction conditions.

Wheel-weight mounting methods vary among tractor manufacturers. Some use a large number of relatively light weights, while others use fewer but heavier weights. In the first case, there are more pieces to handle and in the second, heavier pieces.

You probably can't do much about the ease of installing and removing wheel weights on your present tractor, but it's an important item to check before you purchase a new one. For instance, weights of about 100 pounds can be installed with relative ease by one man, if provision is made for a knob or ledge in the preceding weight to support the weight while the nuts are started on the attaching bolt. Or, if provision is made for the attaching bolts to be held solid while the next weight is slid into place, there's little difficulty in attaching weights.

However, if the weights must be supported in exact location while bolts are inserted and nuts tightened, it becomes a two-man job.

How Much?

How much weight can be added to tractor rear wheels? Consult your dealer for exact information, because many things enter into the decision. However, here are some representative values of maximum total weight recommended:

11-28 — 4 ply at 14 psi — 2070 lbs. per wheel
12-28 — 4 ply at 14 psi — 2430 lbs. per wheel
10-34 — 4 ply at 16 psi — 2035 lbs. per wheel
10-36 — 4 ply at 16 psi — 2100 lbs. per wheel
12-38 — 6 ply at 20 psi — 3470 lbs. per wheel

This total weight per rear wheel includes weight of tractor, liquid in tires and added weight. Exceeding the limits causes early failure of tires.

The addition of several weights per rear wheel often makes it difficult or even impossible to adjust wheel tread without removing the weights. However, proper indexing, or turning, of the weight can reduce this problem.

For instance, if your tractor has the rack-and-pinion type of wheel tread adjustment, correct installation of the weights will allow you to reach the adjusting bolts without removing the wheel weights.

Be Careful

If it is necessary on your tractor to change the wheels from side to side to obtain maximum tread adjustment, be sure to use extreme care when doing this job. A large tire and wheel filled with liquid and loaded with cast iron weights can crush a man if allowed to fall. At one point in the job it is neces-

sary to have both rear wheels off the tractor. If a wheel is allowed to fall against the tractor, it can easily upset the tractor.

With hitch-mounted tools, front weighting is important. The front tires can be filled with liquid, but their small size does not provide for a large amount of weight. Some manufacturers provide cast-iron weights for the front wheels. However, either liquid in the front tires or cast weights on the front wheels tend to make the tractor difficult to steer, especially at transport speeds. Cast front-wheel weights are also difficult to install or remove because of the "squatting" position required to position the weights properly.

Cast-iron weights which attach

directly to the tractor frame are easier to install or remove, since you can stand erect to hold them. In addition, they do not affect the steering characteristics as much as the front-wheel mounted weights.

Most frame weights are designed so that they must be removed to mount a front cultivator. Even if it's not necessary on your tractor, it's a good idea to do so. Otherwise, the front tires may be overloaded; steering will also be more difficult.

Some form of front weighting is generally required with rear-mounted tools. The weight removed from the front wheels by the implement is added to the rear wheels to provide increased traction. The rear wheels may be

likened to the pivot of a lever. Both the front weighting and the rear-mounted tool are prying downward on the rear wheels.

One of the reasons for the importance of easy installation and removal of weights (other than tire liquid) is the fact that they should be removed for conditions or jobs where maximum traction is not required. Excess weighting on these jobs increases soil compaction as well as increasing fuel consumption.

A good rule-of-thumb for weighting is to use enough to prevent visible slippage of the rear wheels, and enough front weight to retain safe control of the tractor. The exact amount needed will vary with the type of work being done.



Tiny grubs—big appetites. Green larvae with white stripes grow to a length of $\frac{3}{8}$ "; adult weevil varies from brown to gray with a black stripe, are $\frac{3}{16}$ " long. Adults shred leaf edges on later cuttings, then over-winter and lay eggs early in the spring.



Damage from the weevil. Note the riddled tips and skeletonized alfalfa leaves. The pest often ruins the first cutting. On all chemicals, follow labeling instructions and warnings carefully.

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Alfalfa Weevil and what to do about it!

Spray your alfalfa with safety; and without the fear of residues in milk. Play it safe, spray it safe; spray with this combination:

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plus
MALATHION

Recommended in the northeastern states, these two insecticides are combined in a convenient ready-to-use liquid formulation by:

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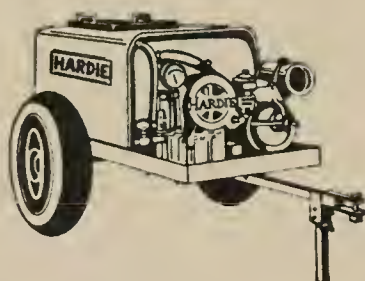
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Our man will help you plan!

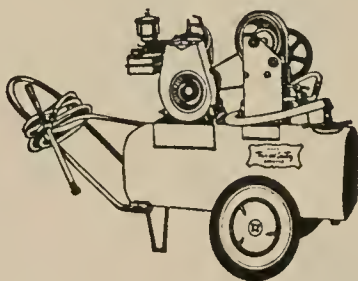
FOR YOUR GARDEN OR YOUR FARM... YOU'LL SPRAY BETTER WITH HARDIE

Model 99

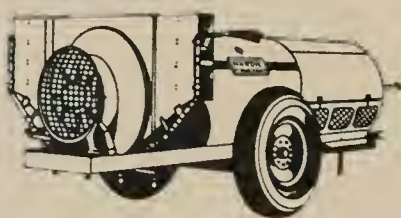


Model 99 Sprayer, available with 50 or 100 gallon tank. Skid or trailer mounted. Made for orchard, row crop, weed control, animal pest control, DDT spraying, poultry house work and in nursery and greenhouse.

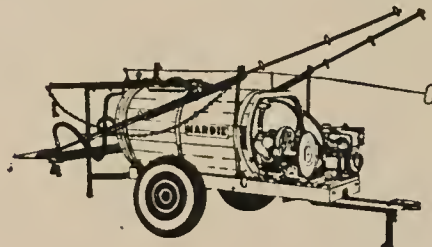
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Hardie Town & Country Sprayers, available with 15 or 30 gallon tank, comes with 25 ft. of high pressure hose, and adjustable Hardie spray gun. Ample capacity for spraying fruit trees, nurseries, gardens, weed and mosquito control.



You wanted an air blast row crop sprayer, and now here it is, tested and proven to give you dependable long life. Includes stainless steel tank, adjustable nozzles, "Duo-Fan" etc. . . .



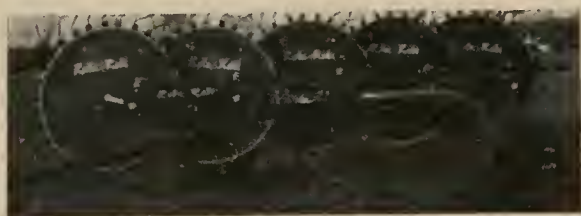
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WATER INFORMATION

Here's a list of publications on wells and water systems. Some are available through the Extension Service at the Colleges of Agriculture in the Northeast; others can be had from the U. S. Department of Agriculture.

Connecticut State Department of Health, State Office Building, 165 Capitol Avenue, Hartford, 15.

Private Water Supplies

Agricultural Engineering Department, Cornell University, Ithaca, N. Y.

313 — Temporary Disinfection of Wells and Springs

314 — Spring Development and Sanitary Protection

355 — Water Supplies and Design of Water Systems

Extension Service, College of Agriculture, New Brunswick, N. J.

594 — Water From Home Wells

598 — Potable Water Directions for Disinfecting a Well

The Pennsylvania State University, College of Agriculture, Extension Service, University Park, Pa.

45 — Make Your Water Supply

59 — Home Sewage Disposal — The Septic Tank System

67 — Water Purification — Methods-Techniques-Equipment

Vermont Extension Service, University of Vermont, Burlington

Farm Water Supplies

The above bulletins and circulars are free to residents of the state; a nominal fee may be charged to those from other states.

Also available are the following bulletins and circulars from the U. S. Department of Agriculture. Write to Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

24 — Individual Water Systems

TM5-297 — Wells

TM5-299 — Well Drilling

436 — Electric Water Pumps on the Farm

674 — Planning the Electric Water System

1978 — Safe Water for the Farm

A Primer on Ground Water

A very complete and well-illustrated publication entitled "Planning Farm Water Systems" is also available from Southern Association of Agricultural Engineering and Vocational Agriculture, Coordinator's Office, Barrow Hall, Athens, Georgia, at \$1.00 per copy.

American Agriculturist, May, 1965



IRRIGATION SYSTEMS

Information-State Problem

NAME _____

ADDRESS _____

A-2

W. R. AMES COMPANY

4511 East Osborne Ave., Tampa, Florida 33610

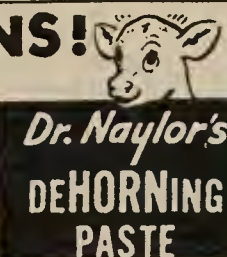


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P.O. BOX 265, RAHWAY, NEW JERSEY

WATER FOR CROPS

by Hugh Wilson*

IN TIME OF DROUGHT, it's nice to hear the patter of rain on the roof. After a stormy week when the rain stops the silence is equally nice. During the past three years few people have heard enough of the patter to become sick of it; instead, they have been wishing for more water for crops and wondering how to get it.

There seem to be four alternatives: (1) Procrastinate till the weather changes; (2) try cloud seeding; (3) make good use of what water there is; and (4) plan to irrigate. Let's consider the first three briefly and then tackle irrigation in more detail.

Weather patterns don't last forever and a change may be about due. To illustrate, the years 1912 to 1914 were extremely dry, and then rainfall began to increase. In 1917 many areas were abnormally wet. During World War II the rainfall distribution was excellent for crops. The present dry trend began in the 1950's and may have nearly run its course. So people for whom good crops are not a necessity may decide to wait it out.

The principles of cloud seeding have been known for a long time, and arguments as to its value have been going on about as long. At present the consensus of opinion is that if seeding is to produce rain, the cloud must be below freezing, it must be several miles thick, and the air below the cloud must be moist. In high mountain country, where clouds are also high and therefore cold, seeding may increase rainfall 10 to 15 percent.

But in the Northeast most summer clouds are too warm for silver iodide or dry ice to have any value. So staging a rain dance might be cheaper and just as effective as cloud seeding!

Well-fertilized crops require much less water per bushel than crops that are not fertilized. Early planting permits growth while water is still available... mulch, either organic or plastic, reduces evaporation... deep, well-aerated seedbeds produce deep root systems. Minimum tillage reduces runoff, and weed control conserves moisture. There are many other ways to conserve water.

Irrigation

Irrigation usually pays on strawberries and vegetables. By one sprinkling at the time of tasseling, field corn yields have been increased by 20 bushels. Drouthy soils have such low water-holding capacity that almost all crops respond to more moisture. But in general, irrigation of deep-rooted crops such as alfalfa does not pay. And with grass the application of nitrogen may be as beneficial and cheaper than irrigation.

So the decision whether or not to irrigate is influenced by the crop and the soil. A rule of thumb might be "Don't buy an irrigation

outfit if it will only be used in dry years." But the final decision may hinge on the availability of water.

Few wells supply water at the rate needed. A bigger-than-average farm pond of 1,000,000 gallons would irrigate eight acres only twice. Pumping at the rate of 400 or 500 gallons a minute quickly lowers the level of all but the larger streams and lakes. The sixty-four dollar question is: "Does a would-be irrigator have a right to use so much water?"

Anyone can use all the water he can find so long as no one

objects. But when water is short, as in time of drought, there is almost sure to be a conflict of interest. Because of the variations in conditions, we will never have laws that will spell out how such disputes will be settled; instead, each case must be judged on its merits. However, there are enough statutes and court decisions to provide clues as to what might be decided in some situations. In general, these are as follows:

Rain water standing on the surface of the earth belongs to the person on whose land it fell. Therefore, he can store it in reservoirs and use it as he sees fit. However, this right ceases when the water moves into an established waterway or channel. Then its use is

governed by the rules pertaining to streams and lakes.

Well Water

Water in a well belongs to the person who owns the surrounding property. Therefore, he can pump it to capacity even though in so doing he causes his neighbor's well to go dry. (The bad part of this rule is that it works both ways and the neighbor can do the same to him.) The only exception occurs when the water in the well comes from an underground stream or lake. Then its ownership would be the same as for a surface stream.

A person who owns land the full length of a stream or all around a

(Continued on page 37)



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* Extension Soil Conservationist, Cornell University



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ANIMALS SUFFERING from acute bloat may die within a few minutes unless treatment is administered promptly. In general, your veterinarian won't even have time to get there before death occurs. Here's a list of equipment needed for quick treatment: something to hold the animal, stomach tube, oil, trocar and cannula, or a large, sharp knife.

A piece of garden hose seven or eight feet long is a good stomach tube, inside diameter should be at least 1/2 inch, and it would be better if it were 3/4 inch. The oil should be a vegetable oil such as corn oil, soybean oil, or other non-mineral oils.

Burp!

When an animal is suffering from acute bloat it is important to relieve the pressure within the rumen . . . and quickly! Naturally, the method chosen should be the least injurious to the animal. Therefore, unless the animal is down or going down, try the stomach tube. Grasp it with the curvature pointing upward; insert it into the rumen via the mouth and the esophagus. If the tube were inserted with the curvature downward it might end up in the trachea; furthermore the end of the tube would go to the bottom of the rumen rather than the top where the gas is located.

If the tube becomes plugged with some of the frothy stuff in the rumen, clear it by blowing on the end of the stomach tube, and by moving the tube back and forth or in and out. If the animal is not relieved sufficiently by this method, pour a half cup of oil into the rumen through the stomach tube. Relief by this treatment will usually begin to take place in a very few minutes, and certainly should begin to show improvement within 15 minutes.

Drastic Measures

If the animal is in very serious condition and begins to become uncertain on its feet, it is time to take more drastic measures. An opening can be made directly into the rumen by the insertion of a trocar and cannula into the triangular area immediately in front of the left hip. The trocar must be sharp, and must be thrust with

considerable force to get through the hide and the rumen wall. The cannula is left in place, and the trocar is withdrawn.

Here again, froth will sometimes plug the opening and not permit release of gas. This may be overcome by re-inserting the trocar into the cannula often enough to maintain a clear opening. If this method is successful, the animal will readily recover from the wound. It's a good idea to put the half cup of oil into the rumen after the animal is relieved by this means in order to prevent the immediate recurrence of bloat.

If the trocar doesn't do the job, or if the trocar is not available, use a sharp knife. Make an opening of sufficient size for the frothy ingesta to flow out easily. This is an extremely drastic measure, but the animal will usually recover from the wound after it has been properly cared for by a veterinarian. If the animal goes down, and this measure has not been taken, death is almost certain to occur.

Bloat Prevention

Even today there is no fool-proof method of preventing bloat, but management practices certainly should not be ignored. The first of these is the use of mixtures of legumes and grasses. Second, keep animals off pasture during the most likely bloat-producing stage of plant growth. Early lush growth is the most likely bloat producer; however, alfalfa in full bloom has been known to produce bloat. Third, provide dry roughage on pasture.

Dry roughage, particularly rather coarse grass hay, will reduce incidence of bloat if the animals eat a considerable amount of it before going on pasture, or if the hay is available in racks in the pasture. High quality legume hay is much less effective.

A program of feeding green-chop or silage probably offers the most effective method of controlling bloat. The mere fact that the animals are forced to eat the entire plant rather than being able to select the very lush tender tops tends to reduce the amount of bloat. However, even though a silage feeding program is followed, it is possible that some animals will still bloat. (Continued on next page)

American Agriculturist, May, 1965

Bloat can be controlled by the addition of small amounts of oil to the forage as it is placed in the feed bunk. The addition of as little as one-fourth pound per animal per day (approximately one-half cup) of soybean oil, corn oil, and probably many other oils that are readily palatable to the animal, will virtually eliminate all danger of bloat. Mineral oils, turpentine and similar materials should not be used because of their very undesirable effects upon the animal.

Research work in New Zealand first proposed the use of oils for pasture spraying. This was effective in preventing bloat, but had the drawback of requiring tremendous amounts of labor.

There is a water dispersable oil that has been added to the drinking water of cattle grazing alfalfa pasture and which was somewhat effective in the reduction of bloat. Called lard oil, it is derived from lard after a considerable degree of refinement. For the most part, though, its cost is prohibitive for such a use on most dairy farms.

Besides, the water consumption of animals is quite erratic, and may be particularly low at times when large amounts of rain have occurred, or if there is water available in the pasture from a creek or pond. Under these conditions animals may not obtain the oil they need at the very time that could be most critical as far as bloat is concerned.

Add to Grain

One of the easiest methods of administering a bloat preventive is feeding the material in the concentrate mixture. Most of the research work on oils mixed with concentrates indicates that twice-a-day feeding of oils in concentrates will not prevent bloat. There is little danger of bloat within two or three hours after feeding of oil in concentrates, but after this time serious bloat may occur.

The Mississippi Experiment Station pioneered in the use of antibiotics for bloat control. The most effective one that they found was penicillin, and they recommended it very highly as a bloat preventive. However, it was soon found that the daily administration of penicillin at the effective rate (which is approximately 75 milligrams per animal per day) will control bloat only for about ten days. After this time, serious cases of bloat may occur.

If the bloat problem can be limited to a relatively short time during the year, say ten days, penicillin could be a very effective preventive measure. More recent experiments, however, have demonstrated that other antibiotics are effective in controlling bloat... erythromycin is particularly effective in this respect.

A test with penicillin plus erythromycin showed that bloat could be prevented by this combination for a period of at least three weeks. This length of time would come closer to covering the period that bloat is likely to be a serious problem during any particular season.

Other antibiotics showing some

American Agriculturist, May, 1965

bloat-preventive effect include novobiocin, chloramphenicol and tylosin. As more stable forms of antibiotics are developed, it may be possible to administer them in such things as the drinking water or salt; a dairyman could then change from one antibiotic to another with very little difficulty. The use of antibiotics in the prescribed amounts could not be detected in the milk, even though they are fed daily for a prolonged period of time.

Detergents have also been proposed and, in some instances, have been used in bloat prevention. If enough of the detergents are consumed by the animal, they can be quite effective. However, these materials don't taste very

good and cattle won't voluntarily take enough into their tummies to do the job.

Almost every weather condition imaginable has been reported to increase bloat; such things as the chemical composition of plants and plant nutrient levels of soils have also been studied. So far, these things seem to be erratic in terms of correlation with the incidence of bloat.

FUTURE DAIRY COWS

Herb Kling, Director of the Division of Milk Control at the New York Department of Agriculture and Markets in Albany, recently

sent to this publication a complete tabulation of the number of calves vaccinated against brucellosis by accredited veterinarians in the year 1963... including both heifer and dairy cattle. The relative importance of the various breeds differed by counties and regions in the State, but here are the State totals:

Breed	Number	Percent
Ayrshire	5,086	2.4
Brown Swiss	1,913	.9
Guernsey	8,533	4.1
Holstein	184,722	88.9
Jersey	6,557	3.2
Other	1,015	.5
New York State Total	207,826	100.



To pick more no. 1 tomatoes, spray regularly with "Manzate" D. Proven by years of use, "Manzate" D effectively protects tomatoes against all the major diseases.

The best disease protection pays off!

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MANEB FUNGICIDE WITH A ZINC SALT ADDED

...for tomatoes, potatoes, and other vegetables

- ☐ Offers safe, sure protection against a wide range of diseases.
- ☐ Carries crops safely through rainy and humid infection periods.
- ☐ May be used with many of the commonly-used pesticides.
- ☐ Safe to use when applied at short intervals according to directions.
- ☐ Won't clog spray nozzles or corrode equipment.
- ☐ Small particles make better contact with disease organisms.
- ☐ Easy-to-use wettable powder mixes easily.

Order your supply of Du Pont "Manzate" D from your local dealer today, or for more information write: Du Pont, Industrial and Biochemicals Dept., Room N-2539, Wilmington, Del. 19898.

On all chemicals, follow labeling instructions and warnings carefully.



Better Things for Better Living
...through Chemistry

News and Views from NEW YORK AND PENNSYLVANIA

Bicycle Safety — For the second year, the Veterans of Foreign Wars, with its national Lite-A-Bike program, is making reflective tape available to schools, civic groups and other responsible organizations for attaching to bicycles. The tape is visible at night from as far as 1,500 feet.

In addition, VFW posts are conducting free inspection programs

on bikes. Any group interested may contact either the local VFW post or national headquarters, Kansas City 11, Missouri.

Tribute to Empire Livestock — At the final banquet of the Mutual Federation of Independent Cooperatives (before merger with Metropolitan Bargaining Agency) Raymond V. Hemming, general manager of Empire Livestock

Marketing Cooperative, Inc., accepted, on behalf of his Cooperative, an Exemplary Service Award. The scroll cited Mr. Hemming "for his exemplary service to livestock and dairy farmers through his capable and diligent management of livestock marketing efforts of the Empire Livestock Cooperative, Inc."

Becona Beechie Pontiac Pearl — She's a fifteen-year-old Holstein matron who has topped all previous 305 and 365-day milk production records for aged cows milked twice daily under official testing supervision. She is owned by John L. Gilliland, Warriors Mark, Pennsylvania.

Conference — A conference for the aerial applicators of the Northeast was held recently on the Cornell University campus. The conference was the first of its kind to be held in the Northeast, and was attended by 76 persons from 13 states. The objective of the conference, according to Professor Arthur A. Muka, general chairman, was to provide the latest information on safe use of pesticides, new pesticides, safe flying practices and techniques, and Federal Aviation Agency regulations. Speakers on the program included Cornell specialists, experts from other colleges, as well as industry and government personnel.

17-Year Locusts — An outbreak of 17-year locusts is expected in the southwestern corner of Pennsylvania this year; they are due in Fayette, Greene and Washington counties. They usually emerged during the last week of May, and are quite numerous in the first week of June.

Hosts To Sale — Clarence and Lewis Worden will be hosts for the Glen Cove Invitational Sale of Shorthorn and Polled Shorthorn cattle at their Glen Cove Farms, Windsor, New York, Saturday, May 15, at 12:30 p.m.

Dairy Festival — The Steuben County Dairy Festival will be held June 5 at Bath, New York. This is the ninth consecutive year that the Steuben County Pomona Grange has played host to urban, non-farm rural, and farm families at a day-long Festival, designed to emphasize the importance of the dairy industry to the economy of the area.

Don J. Wickham, New York State Commissioner of Agriculture and Markets, will give the headline address; a Dairyland Sweetheart and Prince will be named; floats will be entered in a parade by junior and subordinate granges, civic and commercial organizations, while members of the Bath Chamber of Commerce will work closely with the Festival committee. Roger McGlynn of Bath is general chairman; Guilford Tobey, Caton, is co-chairman.

Frank B. Finnerty Fund — Friends of the late Frank B. Finnerty (Steuben County 4-H Club Agent for 22 years) have launched a memorial fund to establish scholarships for Steuben County 4-H boys and girls. A special committee, headed by Burton Ketch of Bath, has inaugurated a six weeks fund raising drive ending May 15. Anyone wishing to aid the fund may send contributions to Mrs. Esther Davis, treasurer, 139 East Morris Street, Bath, N.Y. The committee hopes to be able to award the first scholarships this fall.

Frank Smith — long a prominent farm, political and civic leader in New York State, died on March 21 at his home in Springfield Center. His activities included farming, banking, serving as a State assemblyman, and working with many farm and community organizations.

American Agriculturist, May, 1965

REVOLUTIONARY·NEW DUAL PURPOSE FLY SPRAY

created by WATKINS—only WATKINS has it
—never before a spray so good

Strong words? Big talk? We don't blame you for being skeptical. We were skeptical too when the entomologists in the Watkins Insecticide Laboratories told us about the test results they were getting from a new formula they had developed. But we were interested enough to find out more. (And we hope you will want to find out, too.)

WHAT IS IT?

Briefly, the new product is an approved new Dual Purpose Fly Spray for use (1) directly on cows to provide pasture protection, (2) as a space spray in fogging buildings. You get extraordinary pasture protection that really lets the cattle graze in peace, and you get exceptional knockdown and kill when fogging. It kills just about every kind of insect pest that annoys cows . . . house flies, stable flies, horn flies, mosquitoes and even gnats.



THE PASTURE PROTECTION COMES FROM KILLING FLIES NOT JUST REPELLING THEM.

One of the amazing stories that we heard when the laboratory was testing the product came from the herdsmen. They found outlines of the cows on the barn floor . . . outlines drawn by the bodies of dead flies . . . flies that had settled on the cows in the stanchion, then fallen to the floor, dead. (O.K., . . . we found it dif-

ficult to believe too, until we saw it with our own eyes.)

Anyway this is the kind of fly killer the new Watkins Dual Purpose Fly Spray actually is. It has the kind of killing power that we at Watkins have never seen before, and we have been making the very best of fly sprays for many years.

More important, it's approved for use on dairy cows.

WHAT'S IN IT?

What's in it? Who cares . . . as long as it does the kind of job it does. But for those who are interested, the entomologists tell us that the "secret" is in the particular combination of ingredients they put together:

- Dimethyl phosphate of Alpha-methylbenzyl 3-hydroxy-cis-crotonate
- O, O-Dimethyl, 2, 2-Dichlorovinyl Phosphate and other related compounds
- Pyrethrins
- Piperonyl Butoxide, Technical
- N-octyl bicycloheptene dicarboximide
- Petroleum Distillates

WHAT DOES IT COST?

It costs more than other fly sprays. Of course it does. Why kid about it. You just can't build a fly spray with these ingredients for the same price you can build a simpler spray.

But remember what it will do for you. Find out for yourself. We think you will agree that the new Watkins Dual Purpose Fly Spray

is worth the money . . . because it does so much more, and does it better.

Remember, there is a whole line of other Watkins fly sprays and insecticides to choose from. They are equal to any other spray on the market, a lot better than most.

CALL YOUR WATKINS DEALER

For many years, Watkins has been a leader in insecticides. This new Dual Purpose Fly Spray is just one more example of that leadership. And your Watkins Dealer is the man who can make available to you the experience, the knowledge, the know-how that Watkins had developed in farm insecticides. Call him. Let him help you set up a complete insect control program for your farm.



Watkins SINCE 1868
FIRST IN FARM SERVICE
WATKINS PRODUCTS, INC.
Winona, Minnesota

Water for crops

(Continued from page 33)

lake probably has the right to all the water providing he does not sell it or pump it out of the watershed. A person whose land does not abut a stream or lake has no rights whatsoever. But if he owns part of the frontage, he is entitled to his fair share.

Deciding what constitutes "a fair share" is one of the thorniest problems in law. About the only safe statement is that if an irrigator does not appreciably lower the surface or decrease the flow, his withdrawal would probably not be considered unfair or unreasonable. But as previously noted, pumping for irrigation will lower the surface in many instances.

Must Prove Damage

A saving grace of the "fair share" question is that a complainant must prove damage before a defendant can be ordered to stop taking water. However, if an individual, corporation or municipality has purchased the water rights on a stream or lake that right is absolute, and no one else is entitled to any of the water.

On the favorable side of the picture, we live in a humid climate where immense quantities of water go to waste. An individual or a group can capture and store this unwanted water if they do so before it gets into a defined channel. There are sites where groups who own an entire watershed could build a reservoir and agree on an equitable distribution. Public agencies are hoping to develop more water supplies.

On the unfavorable side, the needs for water are increasing and may exceed supply for a long time. Many streams are so polluted that they are unusable. Public agencies work so slowly that it may be a long time before they show much progress.

In the meantime, a man who plans to irrigate and who fears his rights may be questioned would be wise either to buy water rights or develop his own storage facilities. If he can't do either, he might sell his land and buy where water is available. If he does nothing he may find himself with an irrigation outfit that he can't use.



"They outnumber him three to one and they're all bigger than he is."

American Agriculturist, May, 1965



FOR MORE EFFICIENT FARMING WITH A NIGHT WATCHMAN DUSK-TO-DAWN LIGHT

Today's farm needs light around the clock. Light for work, light for safety, light for protection. You get all this automatically with a dusk-to-dawn Night Watchman. Central Hudson will install, maintain and replace a Night Watchman for you on your pole for as little as \$4.95 a month (including energy charge). Larger lights and additional poles are available. Call your Central Hudson Farm Representative, Harry Cornish, about a Night Watchman Light for your farm.



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GOOD NEW YORK / OAK HARDWOOD!

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BEATERS & APRON
(COMPLETELY ENCLOSED...
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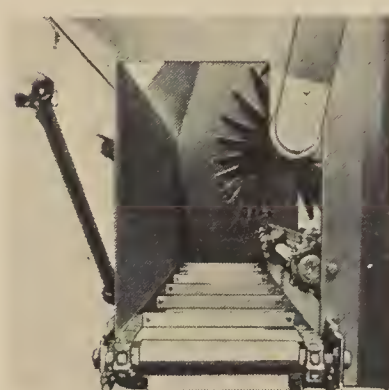
TOPS IN CROP HANDLING EFFICIENCY

TROUBLE FREE HANDLING OF HEAVIEST LOADS



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FINGERS FORCE THE LOAD TO THE
CROSS CONVEYOR... AND OUT!



SPIRAL SPACED
FINGERS "PEEL"
OFF THE LOAD ...
SMOOTH-EVEN
DISCHARGE!

"SAFETY"
CROSS
CONVEYOR ...
NO AUGER!

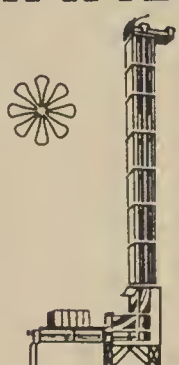
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52" SIDES, 16' OVERALL LENGTH
7' WIDE INSIDE
(3 BEATER ALSO AVAILABLE)



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HANDLE BALES FASTER EASIER WITH A FARMEC CONVEYING TEAM

 The Farmec 155 "Top 60" Portable Elevator / The Farmec 165 Vertical Bale Elevator. The "155" easy-to-maneuver portable conveys as many as 40 bales a minute up a 60° incline without tumbling. Its top drive saves power, lengthens chain life elevating bales or grain. Eight sizes—24' to 53'. / The "165" is a permanent high capacity elevator that's ready to go to work at the touch of a switch . . . inside or outside barn. Handles bales in a wide variety of sizes and densities.

 The Farmec 146 Bale Conveyor. Teams with either the "155" or "165" to put more hay in the mow in less time than other elevator-conveyor combinations. Bale locator drops bales where you want them. Exclusive 90° powered transfer turns bales around corners for maximum use of storage. Learn more about these labor-saving, cost-cutting bale handling teams by Farmec. See your nearest Farmec dealer or write Farmec today.

FARMEC *Specialists in Farmstead Mechanization*
DIVISION OF NEW HOLLAND
Smoketown, Pennsylvania

Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name *Preparation H®*. At all drug counters.

NEW! Zero® PAIL PIPELINE GIVES STANCHION BARN DAIRYMEN A DIRECT MILKING SYSTEM —AT MODEST COST!



Zero STEP-SAVER

Now—thanks to the newly-developed ZERO PAIL PIPELINE—material handling and clean-up can be easy on any dairy farm! Simply set up the low-cost ZERO VACUUM-OPERATED STEP-SAVER where most convenient for use—as shown above. Connect it through a milker line to the ZERO T-20 VACUUM AUTOMATIC BULK MILK COOLER. And you'll have a ZERO PAIL PIPELINE—a modest-cost, modern, direct milking system—which quickly draws milk into the ZERO bulk tank direct from the cow, by vacuum supplied by the tank.

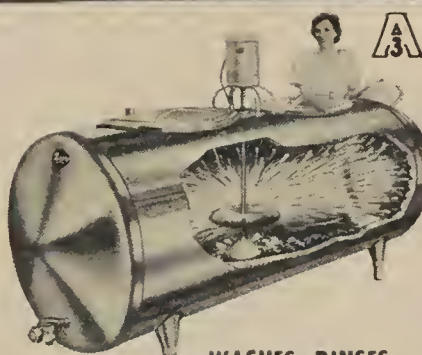
Allows stanchion and basement barn dairymen to take full advantage of saving in labor, improved equipment and materials available—without a large investment. Mail Coupon below for full information—and name of your nearest ZERO Dealer—today!

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VACUUM
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Please send me FREE color-illustrated Literature giving full information about the ZERO PAIL PIPELINE, location of installation nearest me, and name of nearest ZERO Dealer.

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ADDRESS.....
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WASHES, RINSES
AND SANITIZES ITSELF!

Food For The Spirit



by Robert Clingan

THE DAY MEMORY RULES

Memorial Day is more than a long weekend in the spring. It is more than classic auto races or three-day fishing trips. Memorial Day is a day when we honor those who have laid down their lives that this Republic might survive as one nation among nations and a leader among the peoples of the world.

It is also a day when we make our pilgrimage to the cemetery of our community, and visit the family plot where a simple marker speaks of "those who walk with us no more." We adorn their graves with flowers of our choosing, and if their graves are not under "perpetual care" we weed the plot, and make its appearance a little more worthy of their memory.

As we stand before their graves, we become more than ever aware of the truth of the angel message beside an empty tomb: "He is not here." We join the early Christians who proclaim: "I know that my Redeemer liveth, and because He liveth I too shall live" . . . and so do our loved ones.

Yet, on Memorial Day our thoughts do not center on speculations or affirmations about immortality; rather, they are centered in a cluster of memories. These memories are precious. They are selective, and they have become our permanent possession. The depth of our sorrow reflects the joy of our memories . . . the greater the pain of our loss, the greater proof of how much we had to lose.

We have never completed our spiritual pilgrimage of Memorial Day until we face again our personal responsibilities. We must carry out a work, a life, a hope, or a dream that was theirs, or that they began. For good or ill, we are their memorial.

The writer of the book of Hebrews in the New Testament says, beginning with Hebrews 11:39: "And all these, though well attested by their faith, did not receive what was promised since God had foreseen something better for us that apart from us they should not be made perfect. Therefore, since we are surrounded by so great a cloud of witnesses, let us also lay aside every weight, and the sin which clings so closely, and let us run with perseverance the race that is set before us, looking to Jesus, the author and perfecter of our faith . . ."



Good Results on Vermont Dairy Farm with WIRTHMORE Feeding Program



Roads-End Farm at Vergennes, Vermont has been in the same family for 113 years. Now operated by Dean and Alberta Jackson, it has a herd of 110 Holsteins, of which 65 are registered.

Mr. Jackson raises most of his replacements and feels that quality feeds are essential to good growth. His milking herd also gets Wirthmore, and DHIA figures indicate that it is a sound program.

1963	1964
50 cows	56 cows
15850 lbs. milk	16860 lbs. milk
3.5%	3.5%
568 lbs. fat	591 lbs. fat

Roads-End stock is well known for high quality. Mitzi Imperial Bessie, for example, was top selling animal at a recent bred-heifer sale and made over 17,000 lbs. milk and 600 lbs. fat in less than 305 days for her purchasers as a two year old.

The Jacksons use very little pasture. They winter feed in the summer, using dry hay in outdoor portable racks and corn silage in the barn.

Wirthmore feeds are doing their part to help grow good stock and increase production at Roads-End Farm. They can do the same for you. Why not try them now?

WIRTHMORE®

Troubled with
FLIES
in barn or poultry house?

Carbola
DISINFECTING WHITE PAINT

KILLS GERMS, FLIES, INSECTS
while giving clean bright finish

Carbola Disinfecting White Paint is NOT a lime or whitewash product. Will not flake. Goes on easily with brush or sprayer. Contains powerful insecticides that kill flies and insects on contact. Safe for animals and humans. Get Carbola at your farm supply store. Ask about Carbola's Approved Spraymen service. For literature, write Carbola Chemical Co., Natural Bridge, N. Y. Attention Dept. AA-55

Eastern Sales Agents—Maine to Florida
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Gastonia, N. C.

DUTCH ELM DISEASE

by Gordon Conklin

THE PEOPLE of the Northeast have been watching with dismay for many years the ravages of the Dutch elm disease. The American elm, with its matchless grace of form, has long been a favorite shade tree for homeowners and municipality alike...but a spreading cancer has inexorably diminished the numbers of these "friends of the wayside."

This disease is spread by two species of elm bark beetles...one introduced from Europe and one a native species. These pesky critters are contaminated, inside and out, with spores of a fungus having the \$64 handle of *Ceratocystis ulmi*, which spreads rapidly through healthy elms. Obviously, if these insects could be eliminated or somehow prevented from chewing through the bark, the disease could be controlled.

Root Grafts

The only other known method of disease transmission is through root grafts in trees growing close together, in which case no beetle is involved. The fungus merely finds its way from the roots of a diseased tree to a healthy tree, a bit like colds can be transmitted during kissing...that pleasant practice so frowned upon by bacteriologists! Control measures in this case (the elm tree, that is) involve prevention or interruption of root grafts.

The battle against this menace has been joined for a long time...carried to the enemy by research people, professional arborists, and those involved in the mechanics of chemical formulation and application. To find out what's new on the battle front, I visited recently with Professor Wayne Sinclair of the Plant Pathology Department at Cornell University. Here's a summation of our visit:

New Chemical

Probably the most talked about addition to the disease-control arsenal is a systemic insecticide called Bidrin, developed and produced by the Shell Chemical Company, and applied by an injector manufactured by the J. J. Mauget Company.

This material recently was granted a USDA label for use against the smaller European elm bark beetle. It's been tested so far primarily in the Midwest, with only limited observation in the Northeast. Annual treatment is required; it is not persistent for a following season.

Briefly, this chemical is introduced into the tree through an aluminum cylinder, with a diameter of one-fourth inch, driven into the tree so its inner opening is just in the water-conducting vessels of the wood. These cylinders are

driven in every five inches around the circumference of the tree to be treated. Bidrin has the characteristic of concentrating in the bark tissue...lying in wait for a hungry beetle to chomp into a highly toxic meal, killing the so-and-so before he chews deep enough to introduce the fungus into the water-conducting system of the tree.

Now, the application of this in-

secticide is subject to some highly technical matters of judgment. The dosage must be determined before choosing the size of chemical-carrying capsule to use, ranging from one to five milliliters in increments of one milliliter. Dosage depends on a combination of such variables as crown class, height of tree, spread of crown, physical obstructions (paved areas near tree, for instance), foliage density, and tree balance (crown-trunk relationship). No unhealthy tree under eight inches in diameter should be treated, and it's recommended that these be at least six feet between the injection point and the first major crotch.

Because of the complexities of application, Bidrin is available only to people who have completed a training school in its use. Actually, a relatively small amount is scheduled to be available in the Northeast for 1965...very small in relation to the total number of elm trees.

Cost Comparable

As for cost, it looks as though Bidrin treatment would be comparable to the present cost of a spray program. Remember that spraying usually is necessary in June to prevent damage from the elm leaf beetle; the bark beetle

(Continued on page 41)

non-stop!

...the rugged, quiet New Idea hay conditioner with the exclusive design that just about ends plugging!

The secret is in the combination of steel and rubber rolls. The lower steel roll has an exclusive design of tapered flutes in a herringbone pattern. Together, the rolls give you more plug-free feed-through than any other conditioner, bar none.

This same exclusive combination means better conditioning, in less time, too. Hay is fed through aggressively but gently. No broken matchstick

stems; leaf losses are cut way down. Hay is fluffed up more. Result: leafier hay at least one day sooner.

Strength, speed and silence are engineered into all New Idea hay tools. New Idea users will tell you that the New Idea hay conditioner will pay off for you for years to come. That's why you can depend on the best from New Idea, Coldwater, Ohio.



PRODUCTS OF AVCO CORPORATION

Save more time, and fuel, too, with full trailing mower in tandem with conditioner. Ruggedly built mower hums through thickest stands without noisy clatter. Cuts square corners easily, trails perfectly. (Use with or without conditioner. Choice of mechanical or hydraulic lift.)



New Idea full trailing mower. Easy on-and-off; fits any tractor. Cuts every bit of your hay on corners easily, giving you a cleanly cut field. Your choice of models equipped for hydraulic cutter bar lift or patented PTO powered lift.



Unique Belt-Drive Rake. Constant, smooth reel speed with a belt drive assures unusually clean raking, minimum leaf shattering. Change reel speed easily. Choice of 4 or 5 bars. Optional gauge wheel available. Priced right!



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Remember when bad weather meant weather-beaten potatoes?

Not any more. Now there's Polyram. A new fungicide from Niagara.

Polyram controls early and late blight on potatoes. No ifs. No buts. No maybes.

And does much more.

Polyram yields more No. 1 potatoes. More uniform potatoes. Potatoes chippers like.

You'll like using Polyram. There've been no known injuries to potato foliage. It stays in suspension—spreads evenly, doesn't clog nozzles. It's compatible with sodium arsenite and with potato insecticides in common use.

So starting right now forget all your old ideas about blight control. Remember—and get—

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These are only the beginning:



Start with Red Tart Cherries from New York State, stir in a bit of feminine ingenuity and season with a touch of pride. The result: mouth-watering colorful desserts for your family that are creations, not just another item on the menu.

Special Suggestion for May: make a big colorful bowl of Cherry Sauce and keep in the refrigerator as a topping for ice cream or plain cakes . . . or mix it into tapioca and other puddings.

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FOR ALL PURPOSES
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While not the highest, mighty Mt. Shasta, snow covered most of the year, is California's most spectacular peak.

NORTHWEST HOLIDAY



WE CORDIALLY INVITE you to join our midsummer Pacific Northwest Tour party for a glorious trip to some of the most thrilling places in North America. On this page is just a brief outline of places we will visit, but our illustrated itinerary will give you complete information about each day of this wonderful vacation.

RAIL OR AIR. Tour members will have a choice of traveling from eastern points to and from Chicago by either rail or air. If you choose to go by rail, you will leave home August 13 and return August 30. Those preferring to fly to Chicago will leave home airports August 14 and get back a day earlier, August 29.

THE BLACK HILLS. In the heart of the Black Hills we'll see beautiful Sylvan Lake, magnificent Mount Rushmore, spectacular Needles Highway, and Custer State Park; we'll explore quaint Deadwood with its memories of Wild Bill Hickok and Calamity Jane and the reconstructed mining town of Rockerville.

Of course, no visit to the Black Hills is complete without seeing the famous Passion Play in Spearfish, and the very best seats have been reserved for our party.

DENVER. This beautiful city is situated in one of the most spectacular sections of our American Alps. We'll visit the many mountain parks and historical spots in this area.

SAN FRANCISCO. We travel through the famous Feather River Canyon of the high Sierras on our way to America's favorite city. Sightseeing here includes Twin Peaks, Seal Rocks, Lincoln Park, and the Japanese Tea Garden in Golden Gate Park. We also spend a full day in the "Redwood Empire" and see beautiful Mount Shasta before leaving California.

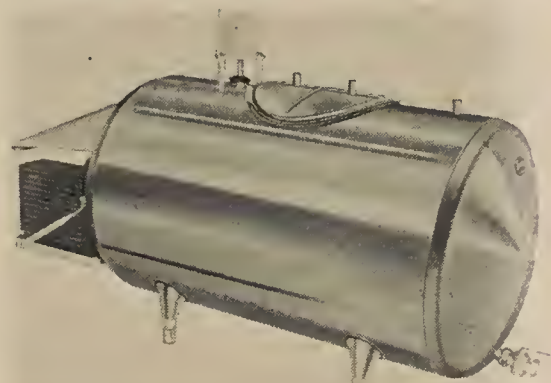
MOUNT RAINIER. Crossing the Columbia River into Washington,

we make our way up the slopes of magnificent Mount Rainier. Later we cross Chinook Pass and travel through the rich valleys to Yakima, apple packing center of the State.

YELLOWSTONE PARK. This is without doubt our most famous National Park. We'll see Mammoth Hot Springs, Norris Geyser Basin, Fountain Paint Pots and, of course, Old Faithful; also Yellowstone Lake and the beautiful falls in Yellowstone's Grand Canyon.

Use the coupon below and write today for the illustrated booklet giving full details and cost of our Northwest Holiday.

With Our ADVERTISERS



ZERO Corporation of Washington, Missouri, now offers a size and type bulk milk cooler . . . with optional labor-saving equipment . . . to fit the needs of any size dairy farm. The dairyman can select from more than a dozen different sizes . . . including 100, 150, 200, 250, and 300 gallon capacities, as well as larger sizes ranging up to 1,500 gallons. There are 200 various combinations with ZERO labor-saving equipment . . . including models with automatic cleaning. Pictured is a tank with 250 gallon capacity.

A new liquid manure handling system was recently introduced by Badger Northland, Inc., Kaukauna, Wisconsin. It is based on Sweden's Sahlstrom System and has been used with much success in Europe for many years. A high-capacity (2500 gallons per minute) pump acts as its own agitator in the storage tank; agitation is required only when the storage tank is being emptied. The pump is P.T.O.-driven, and is mounted on a standard three-point tractor hitch.



Mr. Gordon Conklin, Editor
American Agriculturist
P. O. Box 367-T
Ithaca, New York

Please send me, without obligation on my part, your Northwest Holiday Tour itinerary.

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Gayway farm notes

(Continued from page 16)

whether the church is still really opposed to sin or believes in "accommodation" and "co-existence."

Remember the fellow who was poor but proud — too proud to take relief? He would tighten his belt and care for his family as best he could. His modern counterpart does better on our over-generous welfare schedule, but has lost what the old fellow had in abundance — independence and pride.

Even criticism is tempered so as to not endanger relationships and business opportunities. In fact, compromise is the order of the day, to the point that rare it is to hear a man really say what he thinks and believes.

The question before the house

Dutch elm

(Continued from page 39)

treatments go on earlier in the year. Bidrin presently is not labeled for use against the leaf beetle, but is labeled for cankerworms and aphids.

As for those root grafts I mentioned, the soil sterilant Vapam has been used to "de-graft" trees. Holes are bored in the ground between adjacent trees and this chemical placed in the holes . . . killing everything in the soil over a small corridor, including those chummy elm tree roots! Although dead roots may continue to carry water (and therefore fungus spores) for a while, they eventually cease and desist so they are no longer avenues for infection. There is research evidence indicating that this program can help prevent the spread of the disease where root grafts are involved.

For The Future

In the mill are reports on the use of growth-regulating compounds that stimulate the elm tree to form a dense layer of wood that "bottles up" new infections, thus preventing their spread from the point of inoculation. There are also reports of new anti-fungal agents that will "cure" the disease . . . but these are only in the testing stage, and "exciting new chemicals" are notorious for fading from the scene in the cold, gray light of field tests.

Don't forget that the chemical manufacturers agree with college specialists on an important point . . . continue existing Dutch elm disease control programs for this year. The day may come when more sophisticated materials and programs will bring the millenium in clobbering the beetle. New chemicals do look good, but don't abandon the tried and true methods until experience and increased availability of new products justifies such a shift.

As an afterthought, do you suppose the beetle specialists have anything for those harried parents who would like to control the Beatles? A "systemic" called a tranquilizer, maybe!

is: how long can a man live this way without losing his identity and pride, without losing his basic courage and his natural urge to be an individual rather than a sheep? Limited observation leads me to suggest the rugged individualist will soon be a museum piece . . . so rare will he be.

What evidence do I present?

1. The thundering silence of many thinking people who may agree with civil rights' general goals but who feel the methods being followed to achieve these goals are as wrong as can be. White House blessing of these methods seems to convince many people that it would be unwise to speak out at this time. I can't for

the life of me believe that thoughtful people can have become convinced that marches, sit-ins, sit-downs, and similar demonstrations win or earn respect, or really further any cause. Yet do I . . . or do you hear any R.I. sounding off that there are better ways to achieve desirable ends? I do not.

2. We all recognize that the less local money we put into something the less local control we have. Schools are no exception. We keep asking for more state aid rather than to pay more locally. The end result is less local control and far far less for our education dollar than we would get if we were paying for a higher percentage of our school costs from local funds.

Again, where is the thunderous demand for economy in school administrations? Whether it's because folks feel the control has too far passed from local authorities, or whether they fear someone will accuse them of being against good schools I do not know, but I am aware of a great silence on this all-important subject.

There's no use to labor the point. Illustrations could be multiplied. They would merely bear out the conclusions that we are becoming so sensitive to public opinion that we just do not speak up and "raise a stir" the way a rugged individualist would do. Heaven help us, friends, when all of them are gone!



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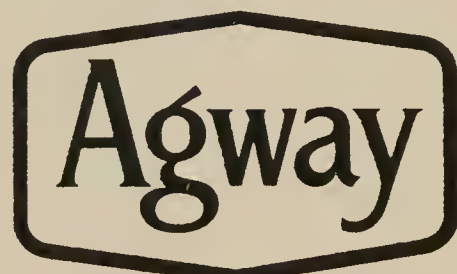
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FARM CHEMICALS

How to Control

THE MIGHTY MITE

by Hugh Cosline



Having mite troubles in your orchard? The best control program should have started earlier, but here's what you can do now . . .

THE MAN WHO SAYS, "May all your troubles be little ones" shouldn't be talking to a fruit grower! At least, not if he includes mites among the little troubles. They are little, individually . . . so small that you can just see one with the naked eye. But collectively they can be a mighty big problem, as many an apple grower has found to his sorrow!

Mites . . . the European red mite and the two-spotted mite, the important ones found in most of the Northeast . . . are formidable enemies, so, naturally, the more you know about them and their habits the better you can cope with them.

European Red Mite

The European red mite lives over the winter on branches, limbs, or twigs as red eggs which may be numerous enough to look like brick dust, and which hatch as the apple buds begin to develop. Each female lays about 35 eggs, and four to eight generations develop during the summer. If you are interested in mathematics, figure out how many descendants one female can have in a year. It's truly an amazing figure!

The young mites suck the juice from the leaves, weakening the tree seriously, and in particular, if severe injury occurs early in the season, damaging the formation of buds for next year's crop. As the mites suck the juice, the leaves take on a typical bronzed appearance.

Another complication comes from the fact that they make relatively ineffective the hormone spray applied to keep mature apples from dropping.

Two-Spotted Mite

The two-spotted mites have different habits. They live over winter as adults, usually on the ground under grass and fallen leaves. Eggs are laid on grasses and weeds as the weather gets warm in May. But while an infestation of the red mite, if not controlled, builds up very rapidly, reaching a peak in late June and early July, the two-spotted mite develops later

with the peak in August.

This pest feeds on grass early in the season, but if the apple grower mows the orchard, or if the population becomes high, the mites gleefully go up to the trees in droves.

If you have no interest in nature as such, you can skip the next paragraph. However, it does give an inkling of some of the wonderful and puzzling ways of pests. I almost said insects . . . but mites are not insects. It isn't too important to the orchardist whether they are insects with six legs or belong to the spider family with eight legs, as mites do.

Anyway, during their egg-laying activities a European red mite female that has mated with a male lays eggs that hatch into females . . . but females not mated with a male lay eggs that hatch into males! This is nature's way of guaranteeing a vigorous population.

Now that that amazing but relatively useless information is out of the way, let's get back to the practical problem of what to do about mites.

Mites are not killed by the usual insecticides. For about two weeks between the time buds begin to show green tips and before the blossoms are out, both eggs and newly-hatched European red mites can be killed by using a "superior oil," specifications for which are available at Cornell and other state colleges. Early in the season the rate is 2 gallons of oil per 100 gallons of water; later on one gallon. This is the best time to hit the European red mite.

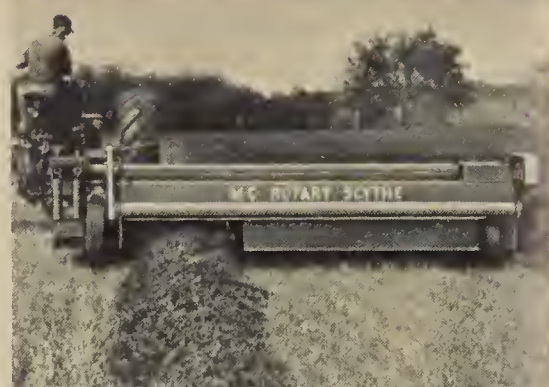
To be most effective, says Dr. J. L. Brann of Cornell, you should do the following things:

1. Apply oil as a dilute spray.
2. Spray only on days when conditions favor good coverage.
3. Apply enough spray to wet thoroughly all parts of the tree.
4. Use 2% oil starting at the delayed dormant stage, and continuing up to the tight cluster stage.
5. From tight cluster stage to early pink, use a 1% oil spray.

Of course, no apple grower

(Continued on next page)

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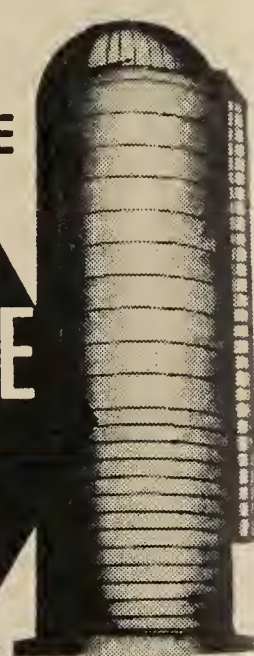
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thinks in terms of one pest only. He is interested in a complete spray program. However, oil is not compatible with some materials...for example, sulfur... used to control scab, but some fungicides are compatible. This is a point to watch. Where a material not compatible with oil is used, you have to wait at least five days before spraying with oil.

Now, if you find in June that you have a heavy mite infestation, it is probable that one or more of the five hints mentioned were not carried out carefully. Actually, they sound easy, but many things can interfere, for example, the weather... and, at best, the time for effective spraying is limited, many present-day orchards are large, and it takes time to get over the ground even once.

What Next?

What can you do to control the European red mites after oil sprays can't be used? There are a number of chemicals referred to as acaricides that can be used to reduce mite population. But if a good job of spraying was done early, the summer population should not get out of hand until late in the season, and maybe not at all.

The point is that if your orchard has a heavy European red mite population in June and July, you can spray with an acaricide and lay plans for a real campaign next spring. Acaricides are of two types: one type (as examples TEPP or Parathion) contains phosphorus and must be used carefully and according to directions to avoid possible injury to the operator. In some orchards mites have become resistant to parathion and TEPP and therefore can no longer be controlled with these materials. In such cases Kelthane, Tedion, Trithion, Ethion, or one of the other acaricides should be used.

Just another reference to the two-spotted mite. In general, she does less damage than the European red mite. Oil sprays are not effective, but again if the population gets too heavy, use of an acaricide in the summer will reduce it.

Don't Wait

As a general rule, if you find four to six mites of either kind on one leaf in the summer it's time to spray. A mistake commonly made is to wait too long! Incidentally, the two-spotted mite became a serious pest when the use of DDT

became common. Apparently DDT killed many predators that fed on the two-spotted mite.

Obviously, space will not allow the giving of information about all spray materials or complete directions for applying. They are complicated, and for good results it's important to follow directions meticulously. Therefore, if you are having trouble with mite control, get full information and directions from your Extension Service or from the dealer who supplies your spray chemicals.

The amazing fact is that with all the insect pests and diseases now attacking apples, growers can still grow perfect fruit, beautiful to the eye and delicious to the palate!

WAR ON BIRDS

The problem of controlling bird damage, a worldwide problem, still continues. Professors Oliver H. Hewitt and Peter J. A. Smith, of the New York State College of Agriculture, report that programs of trapping or poisoning starlings or blackbirds cannot succeed except in local situations because of the birds' reproduction potential. Artificial destruction one year will not reduce next year's numbers.

Recommended is the removal of woodlots, hedgerows, and other bushy spots which provide roosting areas around cropfields. Nets are effective, but costly and diffi-

cult to put in place. In New Jersey, conical paper drinking cups placed over the tips of the sweet corn ears just before blackbird damage began were found effective.

In Delaware and in Florida plant breeding experiments are testing corn varieties with a tight husk or dependent ear — both of which are unattractive to blackbirds.

Cornell specialists hope to run field tests of chemical sterilants on a population of starlings being studied near Hector, New York. Also, they are testing high voltage and high frequency electrical systems that shock the birds, making them emit the distress call and leave.



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Doc Mettler Says:

LEPTO TIME AGAIN

IF EVER I visit the home of my ancestors in Switzerland I'd like it to be in the spring, so that I can see the ceremonies and celebrations carried on when the cattle are moved up the mountains to pasture. Till that day comes I'll have to be content with the feeling of relief that comes each year when the pastures here in the Berkshires turn green.

True, pasture is no longer an important factor in modern dairy farming as far as total feed intake is concerned. However, the few weeks of good grass we do put into the cows in early summer is very important as far as health is concerned. No one has yet put "the green grass factor" in a bottle; still, many problems in cattle respond favorably to it when all medicines have failed.

On the other hand, pasture is no cure-all; in fact, it brings some problems which we don't experience in stabled cattle. For the past year or so we have all been concerned with the spread of virus diseases in cattle. As often is the case, when something new comes along we tend to forget some of the older problems that have been with us longer.

Worms, blackleg and leptospirosis are the most common pasture-spread diseases. Leptospirosis is the most widespread of the three, and this being the time of year to inoculate against it, it might be wise to review its cause, symptoms, and prevention so as to avoid losses from it this summer.

Pomona Type

It may be technically wrong to say that lepto is caused by leptospira pomona infection, since there are so many strains of lepto that have been recognized. Here in the Northeast, however, the pomona type is the most common.

Cattle and hogs are most commonly affected with the disease, but other animals (including man) have been known to carry it. In man and dogs other strains of leptospirosis are more important; since we are primarily talking of farm animals we shall stay with the leptospira pomona with which we are most concerned.

There is one peculiarity to the spread of leptospira pomona which makes it mainly a warm weather disease, and also a slow-spreading disease. Carriers of the disease have the organisms in their urine. Researchers found that they could cause the disease in healthy calves by spraying the nasal passages, the eyes, or open cuts on the animal with a solution containing the leptospira pomona organism. Feeding the organism to animals seldom, if ever, caused the disease.

The organism doesn't live long outside the animal's body. However, stagnant water holes have been found to contain lepto-producing organisms under certain

conditions. In other words, a cow sniffing urine splattering on a concrete walk, or urine spray-blown or switched into the eyes of a cow, would be the most common way for her to contact the disease.

Of course, a cow drinking water in a puddle in a swamp where the water has been recently contaminated by a carrier cow, deer, or muskrat must get some in her nostrils and could become infected. Therefore, stabled cattle seldom have lepto, whereas loose-housed or pastured cattle can have it at any time.

Symptoms

The symptoms of lepto show two forms of the disease. The severe form starts with high fever, depression, and loss of appetite. Milk flow stops, and the milk becomes thick and even blood-colored. (The udder remains soft and pliable). Often the urine is blood-colored. If the cow is pregnant she may abort, or the fetus may die and she will pass it days, weeks, or even months later.

The second form is the so-called mild form which we are more apt to see. The fever may be slight, and only last a day or two, while in the severe type it lasts for a week or more. The most prominent symptom in the milking cow is that milk production goes down to nearly nothing. The milk becomes thick, but does not get bloody. The cow may be only partially off feed, and, as one farmer puts it: "She acts dopey like a cow with acetone."

A cow with the mild form may not ever be sick enough to be noticed. She may be seven months pregnant, and when she suddenly dries up no one is concerned. A few days or weeks later she aborts and only then does anyone realize what happened. Many of the unexplained abortions in cattle away at pasture while dry are caused by lepto. The calf is nearly always dead, and the cow makes little udder. She often passes the after-birth with the dead calf.

Early cases of lepto can be treated with antibiotics. Mild cases respond easily but may remain "spreaders." Severe cases often die despite treatment.

Hogs and Calves

In hogs the mild form is probably all that is seen. A sow may farrow a litter of several live pigs and several "mummies." The main problem in swine is the small litters caused by lepto, but also they are carriers of the disease to cattle.

Calves often have the severe form. They will sometimes die suddenly at three or four months of age with no symptoms other than blood-colored urine. Blood-colored urine in calves is not uncommon, and if they do not have a fever it is probably not lepto.

(Continued on next page)

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American Agriculturist, May, 1965

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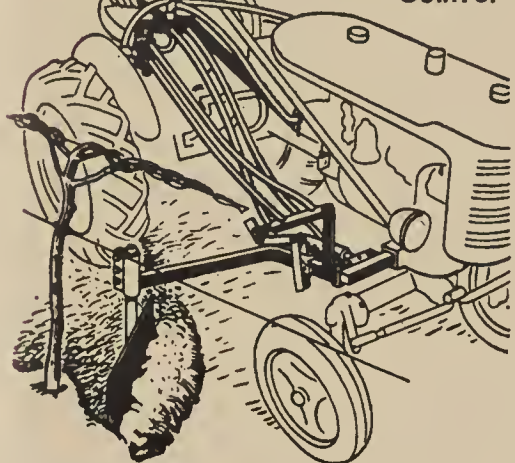


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Doc Mettler says

At the first sign of lept in your herd you should call your veterinarian. He can determine by blood tests whether or not you have the disease in your herd. He may want to take two tests ten days apart to be sure if the disease is new on your farm or if it has always been there. If he knows that your neighborhood has had a lot of lept he may suggest that you not wait for tests but immunize immediately with a good bacterin that he knows will be best suited to your herd. There are many types of immunizing agents available today, and your veterinarian knows which one is best in your case.

The immunization given by most bacterins is good for six to nine months. For this reason, a yearly inoculation just before going out to pasture is recommended for stabled cattle. Each herd needs individual consideration. Some herds need to have calves done at six to eight weeks of age to prevent losses. Your veterinarian can talk this over with you and determine the correct procedure.

NORTHEAST COOPERATIVE

by Ronald Graham

Northeast Dairy Cooperative Federation, Inc., of Syracuse, New York, officially came into being on April 1. On that date the milk manufacturing operations of Mutual Federation of Independent Cooperatives' plant at Oneida and Metropolitan Cooperative Milk Producers' Bargaining Agency's plant at Fort Plain began receiving and handling milk of operating cooperatives of both organizations.

John P. Spofford of Dolgeville is president of Northeast. Other officers are: Ward Phelps, Covington, Pennsylvania, first vice president; Edwin Ferber, Callicoon, second vice president; Howard Burdick, Andover, secretary; Ray Fenton Murphy, Ulster, Pennsylvania, treasurer; Allen Crego, Baldwinsville, assistant treasurer; Edward Cobb, Jr., Sackets Harbor, member of the executive committee.

The board named Robert C. Forsythe, Vernon Center, manager of the Service Division, and Daniel J. Carey, Groton, executive administrator.

Members of the board of directors, besides the officers and executive committee member Cobb, (all from New York unless otherwise noted) are: Abner H. Risser, Bainbridge, Pennsylvania; Richard Anderson, Little York; Glenn Brown, Jr., Randolph; James A. Young, Sr., Angelica; Harold Morrison, Poland; Frank Garrison, Middletown; Carlton Briggs, DeRuyter; Jack Damgaard, Bovina Center; Dean Treat, Honeoye Falls; Henry Eckhardt, Sidney Center; Roy Gardner, Verona; Guy Wright, Plattsburgh; Warren Davy, Coventry; Paul Thompson, Millheim, Pennsylvania; and Burton Freeman, Fort Covington.

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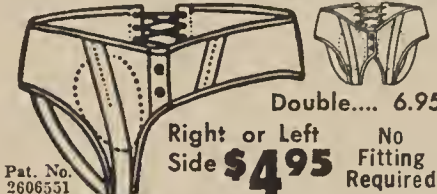
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American Agriculturist, May, 1965

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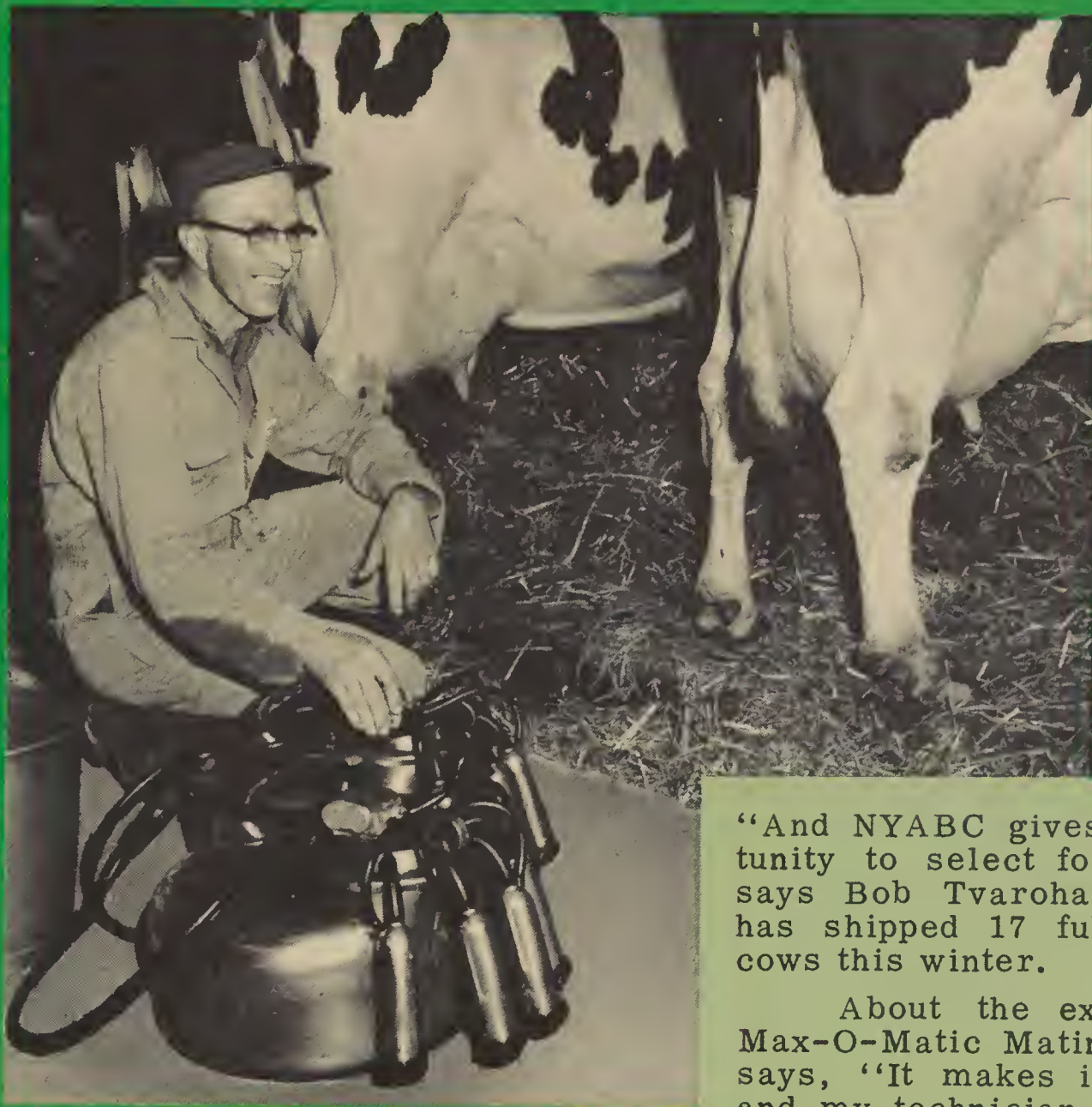
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VISITING

with

Home Editor Augusta Chapman

SEVERAL YEARS AGO when my husband was a member of our local school board, he served on a committee appointed to see what could be done to provide high school students in our area with a better program of vocational education. He became extremely interested in this particular phase of education, and some of his interest was bound to rub off on me.

We began to realize the vast need for adequately training the segment of our high school youth who would not be going on to college, as well as the broad possibilities in this area for training. We saw, too, that only young people living in the State's five large metropolitan regions were getting vocational instruction which was of much value.

Since then, vocational education has become of more and more concern to people of our State and Nation, and in 1963, a Federal Vocational Education Act was passed. In part, this Act would provide training and re-training for persons in all age groups, using all types of educational agencies (public schools, community colleges and agricultural-technical institutes, private trade and business schools, etc.). It would assure that such training was accessible to all persons in all places, and would even establish part-time employment programs for youth who need help to continue or commence a full-time vocational education course.

Education Department Speaker

Last January when the New York State Council of Rural Women met in Albany, Dr. Joseph R. Strobel, Assistant Commissioner for Instructional Services, State Education Department, spoke to us. His vision and enthusiasm for what can be accomplished in this field were contagious. My interest was re-awakened, and I'd like to pass on to you a few things Dr. Strobel told us.

Since a few of the ideas are strictly mine, don't blame Dr. Strobel for something that doesn't sound quite right — probably that's what I injected!

First, Dr. Strobel defined vocational education as "the kind and amount of education that prepares people for work," and said that it should supplement a regular high school education in preparing youth for entrance-level jobs.

Dr. Strobel reminded us that more kids (the word was his) are leaving school and looking for work than there are jobs available. At the present time, 12 to 16 percent of our youth are unemployed. Even a high school diploma is no longer a sure ticket to a job. More kids with high school diplomas

are out of work in Buffalo and Rochester than those who have dropped out before finishing high school.

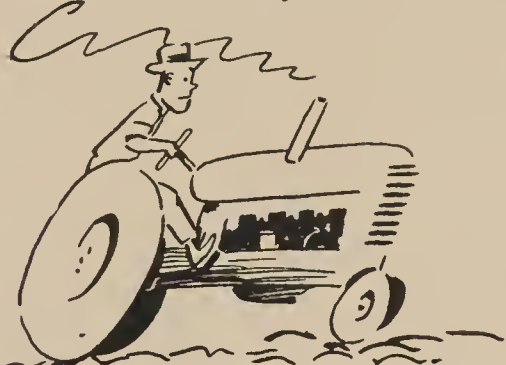
There are two "possible" answers to this dilemma, both of them extreme — the one, war; the other is for the government to move in with special work programs. Certainly, we need to find an in-between solution, and new developments are in order for vocational education. The greatest need of any educational program in our country is in this area.



Dr. Strobel said further, "We have created a distorted sense of values concerning college when it only applies to about half of our kids. Fifty percent terminate their education with the 12th year. Where are scholarship motivation incentives for the fifty percent who will never see college?"

Also, shouldn't we find a way to adequately educate and train our disadvantaged youth, as well as to re-train those adults affected by a re-location of industry or the constant trend toward automation? Dr. Strobel believes, as should we all, that every young person in our State (and our Nation too, for that matter) has a right to the best education he's capable of receiving, "regardless of how many cylinders the good Lord gave him."

We can't all be lawyers, doctors, scientists, teachers... and there's just as great a need in our society for people to be satisfactorily trained in the many technical and



service occupations as in the professions. For too long, vocational education has been considered only as a dumping ground!

Most high schools in New York State offer some form of business education, but there is a direct relation between size of school and level of program. In some places, one teacher is trying to do what a department head and 18 teachers do in Syracuse, for example.

Agriculture is taught in 34 percent of the State's high schools,

but only 15 percent offer programs of an industrial nature. In most schools, boys have a choice of general education or agriculture. Many take ag because it is an easier course and will get them some sort of a diploma, not because they're really interested in it. And many boys would benefit



from business subjects, but they're considered "sissies" if they want this training.

In the field of home economics, education should have a dual purpose. There's a demand that young women be trained for wage-earning jobs as well as to be homemakers. Again, many students find this just an easier route to graduation.

Even in schools where there is a little more choice than just business, agriculture, and home economics, the "magic formula" seems to be auto mechanics for boys and cosmetology for girls! Few students take them because they intend to earn their living in these fields, any more than they intend to be farmers when they take agriculture. On the other hand, many young people who would undoubtedly succeed in these vocations are deprived of the training because they don't happen to live in a place where it's available.

Speaking along this line, Dr. Strobel said, "I don't want to be traveling down the Thruway at 70 miles an hour, knowing that a slow learner has adjusted my brakes. Right then an auto mechanic is closer to my heart than my doctor!"

New York State is not much farther advanced in the field of vocational education than Tennessee or Alabama, and in fact Georgia has outpaced us. Industries are attracted there not only because of lower taxes, but also because they have developed a better work force from which they can choose employees.

What Can Be Done?

Volumes could be written about this and probably have been!

Dr. Strobel feels that too much has been said about comprehensive high schools and not enough about comprehensive programs. Of course, it is impossible for every school in the State to have a program that will include all areas of subject matter. Right now there are 45 or 50 districts just not large enough to support such a program.

We therefore need new areas of cooperative educational services that would give small schools advantages of the larger ones by combining some of the smaller supervisory districts, with special aid to operate and supplement these services.

Dr. Strobel asks the question, "Whoever said that all instruction must be under one roof?" Ideally, no pupil should travel more than 20 miles a day by bus, but there is

no reason to feel that every subject in all classifications must be taught in every school. These vocational schools could run 24 hours a day if necessary, and in that way serve in-school young people, drop-outs, and adults.

New York State residents have always had reason to be proud of their schools, and for the most part, our young people bound for college are at least fairly well prepared to take their place in a university and to successfully complete their chosen course of study. Let's hope it will not be too long before we can be just as proud of our centers for vocational education where the rest of our youth can get the training they really want and for which they're best fitted.

COFFEE CAKE RECIPE

Last December, along with the story of the A. A. — Grange Coffee Cake Contest finals, I printed the top three prize-winning recipes. Ever since then, I've wanted to give you the recipe for my favorite.

The coffee cake that tasted just about the best to me was baked by our only teen-age Pomona winner, Miss Sally Dantz of Groveland, New York, in Livingston County. Sally called her coffee cake, "Cinnamon Pull-Apart," and that was a good name for it.

Of course, only a few people were allowed in the room where the judging was going on, but being a "co-director" of the contest, I was one of the favored few. As people walked by the table, it was easy to pull off a little piece of Sally's cake... and after one taste, you just sort of went back for another. By the time judging was finished and the winning entries put on display, Sally's cake was more than half gone!

Here is her recipe:

CINNAMON PULL-APART

2 cups milk
1/2 cup sugar
2 eggs, beaten
1/4 cup melted shortening
2 yeast cakes dissolved in
1/4 cup warm water
3 teaspoons salt
6 to 7 cups flour

CRUMB MIXTURE

1 1/2 cups white sugar
2 teaspoons cinnamon
1/2 cup finely chopped nuts

Scald milk. Mix together sugar, beaten eggs and melted shortening. Add milk and let cool to lukewarm. Add yeast which has been dissolved in the warm water. Then add flour, a little at a time until the dough is of a consistency to clean the bowl.

Put dough on a lightly floured board and knead with palm of the hands; place in a greased bowl and let rise for 1 to 2 hours, until double in size. Again, place dough on floured board and knead until air bubbles are out.

Cut dough into 1-inch balls, roll balls in melted butter, and then in the crumb mixture. Put balls in angel food cake tin in two layers. Let rise for 30 minutes and bake 35 to 40 minutes in 350 degree oven.

American Agriculturist, May, 1965



Make the most of fresh strawberries during the short time they're in season, and try Strawberry-Almond Tarts for a family dinner or for company.

SPRINGTIME TREATS

by Alberta D. Shackelton

WELCOME SPRING to your table with the season's rosy rhubarb, plump, mouth-watering strawberries, and fragrant, tangy-sweet pineapple. These popular fruits bring variety and goodness to our meals as the fresh winter fruits begin to dwindle.

Good color — pink to rosy-red — is a sign of good flavor in rhubarb. The stalks should be fresh, firm and crisp, yet tender. It is best to use rhubarb soon after picking or buying. If necessary to keep it for a few days, cut off leaves, place stalks in moisture-proof bags, and refrigerate.

The best quality strawberries will be well formed, shiny in appearance with uniform red color, and without moisture or white or decayed spots. Berries should be used within a day or two of picking or purchase. Place unwashed berries in single layer in shallow pan or tray, removing any soft or spoiled ones. Just before serving, give them a quick cold water bath, lift them gently from water with the fingers, and remove green caps.

A good quality pineapple will be fresh, clean, and heavy for its size, "square shouldered," of good color for the particular variety, hollow eyed, and ripe or nearly ripe — green leaves at crown of fruit can be plucked out when it is ready to eat. If it is not ripe when purchased, wrap in wax paper and ripen at room temperature.

STRAWBERRY-ALMOND TARTS

- Pastry for 2-crust pie
- 3/4 cup toasted, slivered almonds
- 1 package vanilla pudding
- 1/2 cup heavy cream, whipped
- 4 cups strawberries, halved (approx.)
- 1 cup sugar
- 3 tablespoons cornstarch
- 1/4 teaspoon salt
- 1 cup water

Divide pastry dough into 8 equal portions and roll each portion into a 4-inch round. Use individual tart pans or fit each round of dough over back of muf-

fin cup, pressing and pleating so it will fit close. Prick each shell with fork, place on baking sheet, and bake in a very hot oven (475), 8 to 10 minutes. Cool and remove tart shells to tray.

Make up vanilla pudding according to package directions for pie, using 1/4 cup less milk. Cool and fold in the whipped cream. Cover bottom of each tart shell with almonds and divide the cooked filling among the tarts. Reserve 1 cup of berries, and arrange remaining berries cut sides down on top of filling.

Crush the reserved cup of berries and mix with sugar, cornstarch, salt, and water. Cook over low heat, stirring constantly, until mixture boils and thickens. Cool slightly and pour over berries on tarts. Chill at least 1 hour or until glaze is set.

Note: If desired, you may add 1 cup finely chopped toasted almonds to the pastry instead of placing in baked shells.

STRAWBERRY CREME

- 1 family-size package strawberry gelatin
- 1/4 teaspoon salt
- 1/2 cup sugar
- 2 cups boiling water
- 1 1/2 cups cold water
- 2 teaspoons almond flavoring
- 1 cup heavy cream
- 3 cups sweetened strawberry halves

Dissolve gelatin, salt, and sugar in boiling water. Add cold water. Cool and stir in almond flavoring and cream. Set bowl of gelatin firmly in ice and water. Chill until slightly thickened. Whip with egg beater until fluffy and thickened. Spoon into a 1 1/2-quart mold and chill until firm. Unmold and fill center with sweetened strawberries. Serves 8.

FRESH MINTED PINEAPPLE CUP

- 1 medium pineapple
- 1 1/2 cups sliced strawberries
- 1 cup reconstituted frozen limeade
- Mint

To prepare pineapple, twist off leafy top, protecting hand with paper towel. Cut a slice off base of pineapple and stand on a cutting board. With sharp knife, cut off wide strips of peel from top to bottom. Remove eyes; cut narrow, diagonal "V" shaped wedges, cutting each side of diagonal row of eyes, and lift out wedges. Cut crosswise circles, remove core of each, and cut slices into small cubes.

Combine fruits and place in sherbet glasses. Pour limeade over the fruit and top with sprig of mint; or add chopped mint to limeade before pouring over fruit.

BAKED RHUBARB

- 1 pound rhubarb
- 1 1/4 cups sugar
- 2 tablespoons water

Wash rhubarb and cut into 1-inch pieces. Combine with sugar and water and place in 1 1/2-quart casserole. Cover and bake in quick moderate oven (375), 30 to 40 minutes, or until rhubarb is tender. Serves 5 to 6.

For a Rhubarb Cobbler: Just before rhubarb is completely tender, stir in 1 1/2 tablespoons cornstarch mixed smooth with a little water, and 1 tablespoon butter. Increase oven temperature to 425.

Drop on top your favorite drop-baking powder biscuit dough, sprinkle dough lightly with sugar, return to oven, and bake about 15 minutes or until biscuits are done and lightly browned. Serve warm.

OLD-FASHIONED RHUBARB PIE

- Pastry for 2-crust, 9" pie
- 4 cups inch-size rhubarb slices
- 1 1/3 cups sugar
- 3 tablespoons flour
- 1 to 2 tablespoons butter

Divide pastry dough in half. Line pie pan with one portion. Combine rhubarb with a mixture of the sugar and flour and place evenly in the pastry-lined plate. Dot with butter. Top pie with plain pastry top or lattice top as desired, using second portion of dough.

I find one of the criss-cross pie cutters (a white plastic overgrown

cookie cutter available in housewares department) an easy way to give a lattice-like top crust. Be sure to moisten edge of bottom crust before adjusting top; press edges to seal, trim, flute, and push up sealed edge to stand upright. Sprinkle sugar over crust and bake in hot oven (425), 40 to 50 minutes, or until crust is nicely browned and the juice begins to bubble up through the openings.

Note: Vary your rhubarb pie by substituting for 2 cups of the rhubarb, 2 cups frozen cherries, 2 1/2 cups halved strawberries, or 2 cups finely diced pineapple.

Preserving Season Notes

If you are planning to can this year, you'll want the revised canning booklet from the U.S.D.A. Send a postcard request for a free copy of "HOME CANNING OF FRUITS AND VEGETABLES" (HG-8) to the Office of Information, U.S. Dept. of Agriculture, Washington, D.C. 20250.

Jelly makers will welcome a new quilted-crystal jelly glass, a product of Ball Brothers, which will be available in food markets by early summer. These new glasses are molded in a design reminiscent of Early American pressed ware, fitted with lids garnished with colorful fruits, and packed in a white plastic compartmental tray. They will sell for \$1.39 for a tray of one dozen glasses, and will be particularly nice for gifts of jelly or jam to your friends.

LIVING ELECTRICALLY

by Sally Goth

I pushed the light switch in the hall;
Flicking was no use at all.
I turned the thermostat up high;
The heat had long since gone awry.
My icebox, with no extra cost,
Was suddenly a self-defrost!

About this all-electric craze,
There is one point I'd like to raise.
Though it's a boon to all mankind
And usually the best you'll find...
It clearly has one hitch, my dears,
When power's off, it disappears!



GROOMING INCLUDES CLOTHING CARE

Well groomed young ladies know that a missing button can make a beautiful coat unattractive in appearance. They also know that no one likes to see dresses with ripped hems or a pair of unshined shoes.

Attention must be paid to wardrobe care if a girl is to look her best at all times.

The responsibility of keeping your clothes in presentable condition should be yours, not your mother's. This weekend would be a good time to check your wardrobe. Ask your mother if

you may use her sewing kit, and sew on missing buttons, stitch ripped hems or seams, and make any other needed repairs.

Check your woolen skirts and dresses for lint. Chances are, they could stand a good brushing. If it's a nice day, hang the garments on the clothes line outside, and then give them the brushing of their lives. You'll be surprised how fresh they look, feel, and smell when you have finished.

Don't forget shoes, either. The easiest way to clean and polish shoes is to sit on the floor with plenty of newspaper spread around you to absorb any excess drops of polish. Follow the directions on the shoe polish can or bottle for best results.

Form the habit of caring for your wardrobe every week or so. Keep a notepad on your dresser where you can write down clothing mishaps as they happen. Then when the time comes to make repairs you will save time by being able to glance at a list rather than go through your complete wardrobe.

CHERRY PIE CONTEST PRIZES



From MONARCH RANGE COMPANY

To one of the top State Winners: Hi-Oven "Modernique" Range by MONARCH.



Co-directors of the 30th anniversary Cherry Pie Contest are Mrs. Augusta Chapman, Home Editor of American Agriculturist, and Mrs. Agnes McHefhey, Heuvelton, N. Y., chairman of the State Grange Service and Hospitality Committee for 1965.

Beautiful flaky-crust pies, filled with juicy red cherries, have been making a hit from one end of New York State to the other since the Grange-American Agriculturist Cherry Pie Contest started last January in the Subordinate Granges. We hope that you are in this contest, for the fun and excitement are beginning to mount!

By the end of this month, all of the elimination contests in the Sub-

ordinate Granges will have taken place, and then Subordinate winners will match cherry pies in their county contests during June and July. Finally, when State Grange meets at Saratoga Springs next October, the 53 county winners will compete for the title of State Champion Cherry Pie Baker and the prizes shown on this page, plus cash prizes.

Both men and women are eligi-

ble to take part in this contest — in fact, any member of a New York State Subordinate Grange is eligible, except a professional baker. Contestants will enter regular two-crust cherry pies or those with lattice top crusts. Pies made with commercial crust mixes and prepared pie fillings are not eligible.

We know that everyone is eager to learn what prizes will be awarded State Contest winners next fall, and here is the information about those prizes. The three top winners

will receive one of the following:

An automatic Unico Portable Dishwasher with vinyl coated racks and easy connection to regular sink faucet from Agway, Inc.

A 30-inch Hi-Oven "Modernique" Range in beautiful Wood-tone (antique copper) finish from Monarch Range Company.

A 52-piece service of Community Silver (Affection pattern) with Hostess Drawer Chest from Oneida, Ltd.

To each of the 10 highest state winners, the following prizes:

A Corning Ware one-quart Sauce-maker with detachable handle from Corning Glass Works.

A Cheddar Treasure Chest Dairylea Cheese Assortment from Dairymen's League Coop. Assn. Inc.

In addition to the prizes listed above, state winners will receive the following cash prizes:

\$159.00 in entry prizes from New York State Grange. Each of the 53 county winners taking part in the finals will receive a \$3.00 entry prize.

\$107.00 from American Agriculturist, to be distributed among the 15 top winners as follows: First prize, \$25; second, \$20; third, \$15; fourth, \$10; fifth, \$8; sixth, \$6; seventh, \$4; eighth through tenth, \$3, and \$2 each to the next five high winners.

Names of county winners will be published in American Agriculturist as we receive them from the Pomona Service & Hospitality chairmen. Watch for them in future issues!



From AGWAY, INC.

To one of the top State Winners: An automatic Unico Portable Dishwasher.



From ONEIDA, LTD.

To one of the top State Winners: 52-piece set of Community Silver with Hostess Drawer Chest.



TO EACH OF THE 10 HIGH STATE WINNERS

From CORNING GLASS WORKS — A Corning Ware 1-qt. Sauce-maker with detachable handle.

From DAIRYMEN'S LEAGUE COOP. ASSN. INC. — A Cheddar Treasure Chest Dairylea Cheese Assortment.

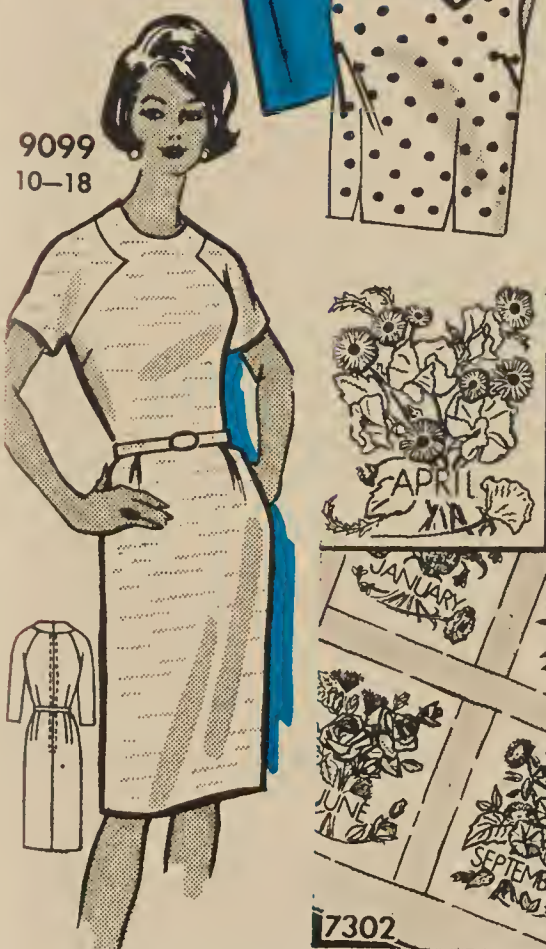
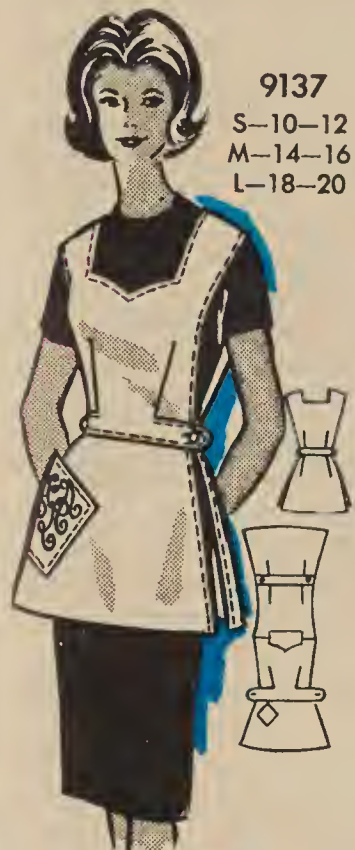


The AA Clothes Line

516. Lacy shell knitted of 3-ply fingering yarn. Team with skirts, slacks. Directions for Sizes 32-34; 36-38; 40-42 included. 25 cents.

9260. Twin tops, slim pants plus shorts. Printed Pattern in Junior Sizes 9, 11, 13, 15, 17. See yardages in pattern. 35 cents.

9137. Cobbler apron, embroidered pocket. Printed Pattern in Sizes 10-20. Medium (14-16) takes 2-5/8 yards 35-inch fabric. 35 cents.



9047. Six-gored sundress, short jacket. Printed Pattern Half Sizes 14-1/2-24-1/2. Size 16-1/2 dress, 3-3/8 yards 35-inch. 35 cents.

4742. Princess charmer, choice of necklines. Printed Pattern in Misses' Sizes 10-20. Size 16, 4 yards 35-inch fabric. 35 cents.

9330. Travel trio. Printed Pattern in Half Sizes 12-1/2-22-1/2. Size 16-1/2 suit, 4 yards 35-inch; blouse, 1-5/8 yards. 35 cents.

9099. Back-zipped sheath; smart sleeves. Printed Pattern Misses' Sizes 10-18. Size 16 takes 2-7/8 yards 39 inch fabric. 35 cents.

7302. A flower for each month! Embroider each of the 12 on separate blocks; join for quilt. Charts and flower transfers. 25 cents.

7302

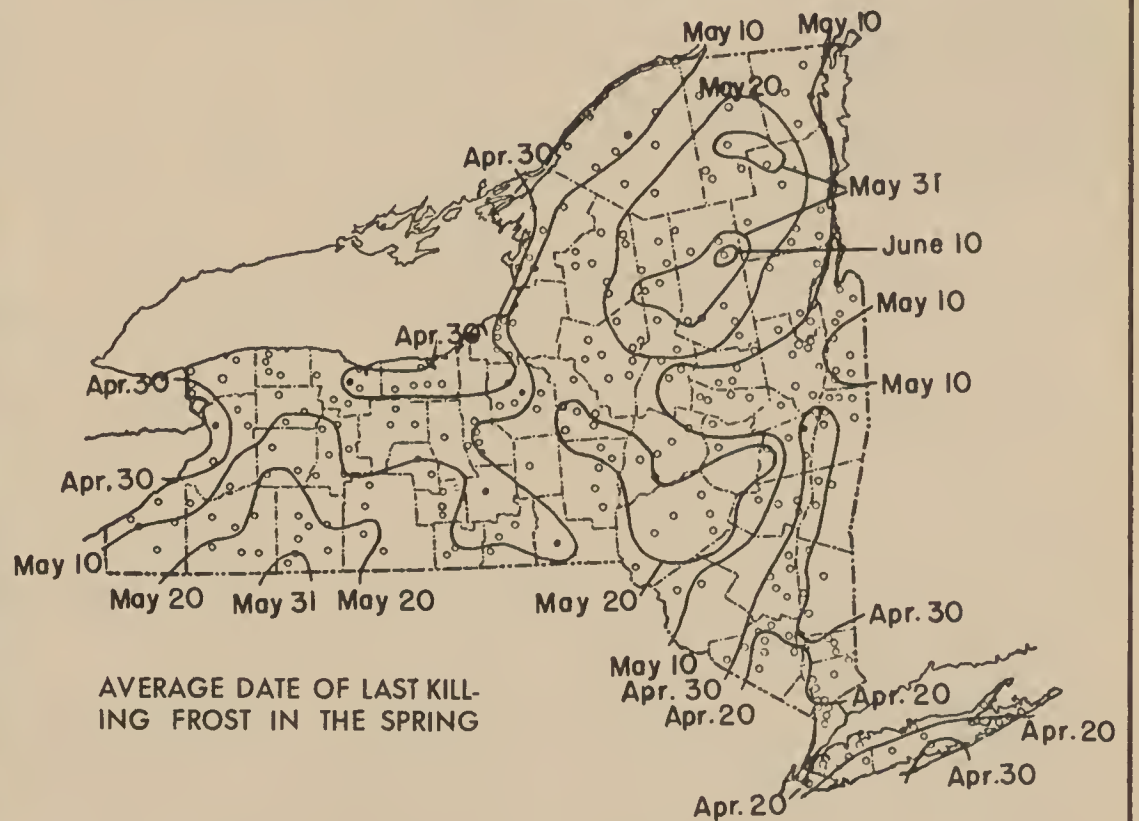
DRESS PATTERNS are 35¢ each. NEEDLEWORK PATTERNS are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011. Write name, address, pattern size and numbers clearly.

More than 350 spring-summer design ideas in our Catalog of Printed Patterns. Exciting fashion and fabric features plus ONE PATTERN FREE — any one you choose. Send 50¢ for Catalog now!

Three Free Patterns are printed in our 1965 NEEDLECRAFT CATALOG, plus 200 designs to order. Send 25¢.

New, DECORATE with NEEDLECRAFT Book—25 complete patterns for decorator accessories shown in 5 room settings. Send 50¢ now.

What's your frost free date?



AVERAGE DATE OF LAST KILLING FROST IN THE SPRING

Getting anxious to set out those tomato plants?

Better have a look at the frost record for your hometown, on the map above! On the average dates shown, the risk of frost is 50 percent, which is entirely too great for tender crops.

The map was compiled at Cornell University, from records at about 150 reporting stations, over many years.

For official Weather Bureau forecasts, tune in on WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Niagara Falls	WHLD	1270 kc.
Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oswego	WOSC	1300 kc.
Boonville	WBRV	900 kc.	Plattsburgh	WEAV	960 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.

Northeast Radio Network

Ithaca, New York



ED EASTMAN'S PAGE

THEY CALLED HIM A FOOL

Bordering on Seneca Lake, just a few miles south of the city of Geneva, New York, is the old John Johnston farm. Here stands a monument commemorating one of the most interesting and important agricultural events in the history of western New York. On the monument is an inscription which reads:

"Farm and residence of John Johnston, Seneca County farmer, who here originated under-drainage in America in 1835 and thereby became an outstanding contributor to human welfare. Honored by the American Society of Agricultural Engineers."

The monument is a 14-foot boulder brought from nearby Taughannock Falls, so it is likely to last as long as the countryside itself. It honors the man who imported and used the first tile drain in America.

Look at the fine face of Mr. Johnston, pictured on this page, representative of a generation of rural leaders whom we will never see again.

Before tile drainage, there were, of course, various kinds of soil drains, most of which were laid with stone in ditches and covered over the top with flat stones; but these were unsatisfactory. They had to be installed with endless labor and soon clogged up and went to pieces.

When Johnston was ready to lay his first imported sections of tile, his neighbors gathered to jeer — as men have jeered at new inventions since time immemorial. They called Johnston a fool and said: "How will the water get into the tile? They will poison the land! They will be crushed by the weight of the soil on top. They will dry out the land so no crop will ever grow. They will freeze during the cold winter weather!"

But, like most inventors and pioneers, Johnston was not to be stopped. Before his death in his 90th year in 1880, he and his hired help had laid 72 miles of drains on his farm, nearly doubling its productivity. So striking were the immediate results of his drainage that the practice spread rapidly in New York and other states, into hundreds of thousands of miles of efficient drainage under thousands of acres of good land which, without drainage, would be unproductive and nearly worthless.

Countless are the farmers who have waited and waited in the spring for their land to become dry enough to work, only to find

that by the time the soil is dry, it rains again. Everyone who has had experience with wet, or especially clay soil, knows that if you try to work it when it is wet you will find it full of almost solid lumps, hard as rocks, all during the season. Good under-drainage solves the problem. Not only does it drain off excess moisture, but a well-drained soil retains enough moisture in a dry time to produce a good crop.

Have you laid any tile lately? It is one good way to enlarge your farm. A ditch-digging machine takes much of the hard labor out of it.

~~~~~  
Make a child happy now. Twenty years from now he will be happy with the memories of it.  
~~~~~

A SUGGESTION

Looking for a birthday or Mother's Day present? Ed Eastman's great book, *JOURNEY TO DAY BEFORE YESTERDAY*, may be your answer.

Send your check or money order for \$5.95 to American Agriculturist-Rural New Yorker, Savings Bank Building, Ithaca, N.Y., and a copy will be mailed to you postpaid. I.M.L.



John Johnston, father of tile drainage in America.
See article on this page.

WHAT DO YOU THINK?

Suppose a man whom we will call Mr. X buys a fairly large farm, say 300 to 400 acres, at a very low price on top of a hill. Most of the land is tillable, in fairly good condition and well-watered. But there are no fences, no buildings on the place... which, together with its being on top of a hill, partly accounts for the low price.

Suppose Mr. X lives near enough so that he doesn't have to build a house. That may come later. But he will have to fence the place and build a large barn, probably a pole barn.

Suppose further that nearly every tillable acre of the farm is well inoculated with birdsfoot so that it would be easy to grow this valuable legume for both pasture and hay.

Suppose fertilizer and lime are applied as soil tests indicate, and suppose there is proof that alfalfa will also do well with heavy liming.

Now, here is the \$64 question for you to ponder. If X stocks the farm with a large herd of beef cattle... Black Angus or Hereford... can he make a living after he gets it producing?

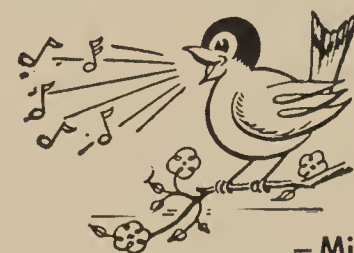
Or suppose X also buys good young dairy heifers and grows them well until calving. Could they supplement the beef project?

Let's take it for granted that X is a good stockman and likes it.

This is an interesting question with possible variations, because there are thousands of acres of cheap land in the Northeast that could be developed into such a stock farm. Relatively little capital would be required after buildings and fences were up because comparatively little expensive equipment would be required. This might be the answer for a young man who has little capital but who wants to farm.

It is also true — at least it seems so to me — that this or similar projects would release dairymen from the tremendous responsibility of producing milk under modern conditions, with freedom from the hundred-and-one regulations which are now required of dairymen.

MAY MORNING



— Milton

Now the bright morning-star,
Day's harbinger,
Comes dancing from the east,
and leads with her
The flow'ry May, who from her
green lap throws
The yellow cowslip and the pale
primrose.
Hail, bounteous May, that
dost inspire
Mirth, and youth, and warm
desire!
Woods and groves are of thy
dressing;
Hill and dale doth boast
thy blessing.
Thus we salute thee with
our early song,
And welcome thee, and wish
thee long.

BEST SPOT

Now that farming has become big business on many farms, it is more necessary than ever to do some of the things that used to make farming a life as well as a living. There is no money that can buy vegetables as good as those fresh from your own garden. They can add much to the farm table all through the season. Also, there's nothing else that will brighten the farm day for every member of the family like a flower garden.

To have both a vegetable and flower garden does not involve much work if a little planning is done. Both can be set or planted in rows and easily cultivated with a tractor. Varieties such as zinnias, marigolds, nasturtiums and petunias for the summer, and the friendly little crocus, daffodils, tulips and dwarf twinkle phlox for the spring will add color and bring happiness to all who behold them.

The garden can be the best spot on the farm!

EASTMAN'S CHESTNUT

The late Albert Mann, great dean of the New York State College of Agriculture, once told me this story on himself. He said he jumped into a taxicab at Grand Central Station in New York City and said to the driver: "Drive fast. Drive fast!"

Accordingly, the driver zipped up and down and around several streets. After a few moments, Dean Mann said:

"Aren't we almost there?"

"Darned if I know, mister," said the cab driver. "Where are we going?"

American Agriculturist, May, 1965



SERVICE BUREAU

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mrs. Hiram Mack, Rushville	\$19.95
(refund on trap)	
Mr. Frederick Miller, Conewango Valley	200.00
(settlement for luggage)	
Miss Mary Lockwood, West Winfield	5.96
(refund on radio)	
Mr. Rodney Kent, Jasper	5.95
(refund on subscription)	
Mr. Robert W. Lyon, Nineveh	20.00
(refund on dog)	
Mr. Sherwin Hill, Fairhaven	10.00
(refund on merchandise)	
Mr. J. Wesley Henderson, Evans Mills	1.00
(refund on order)	
Mr. Otto Yunker, Strykersville	7.95
(refund on cattle prod)	
Mr. Adrian S. Bolton, Edmeston	9.00
(damage settlement)	
PENNSYLVANIA	
Mr. Neil S. Bixby, Troy	1.00
(refund on order)	
VERMONT	
Mrs. Zena Brassard, Bristol	17.40
(refund on merchandise)	
CONNECTICUT	
Mrs. Arthur Furman, Shelton	1.00
(refund on order)	

UNORDERED

"In today's mail I received two boxes of greeting cards which I did not order. To return these cards will cost me postage. If I keep them, I will get threatening letters.

"Is it lawful to send things like this and expect the receiver to pay return postage? Once before I did return cards and continued to get bills for about two years.

"How can I avoid this inconvenience?"

A person is under no obligation either to pay for unordered merchandise or to return it. If you wish, you can hold it for a reasonable time in case the company should send someone to pick it up and, of course, you should not use it.

CORRESPONDENCE SCHOOLS

"I am writing in regard to Home Study Practical Nursing Courses. Could I take such a course in New York State and go to another state and practice nursing? Then could I come back here and apply for a license in New York State?"

New York State does not recognize correspondence schools for nursing. In order to be licensed as a practical nurse, you have to pass the State Board examination and you have to be graduated from an approved school of practical nursing. The State Department of Nurse Examiners, 23 South Pearl Street, Albany, New York, can furnish you with information regarding approved schools.

"I would like some information about heavy equipment schools. There is one that offers a six-week correspondence course. After completing the course, the school is supposed to place the student on a job. I would like to know if this is an approved school and how soon they place a student on a job."

Before signing up for any correspondence course, it is important to read the contract carefully and to be guided only by what is printed in the contract. Promises made by salesmen do not hold unless they also appear in the contract. It is doubtful that any correspondence school can guarantee employment. Also, one should be sure he has the time and money, as well as the ability and perseverance to profit from the course, because once the contract is signed it is legally binding.

The New York State Department of Education has suggested that a person interested in the possibility of on-the-job training for such work write the New York State Apprenticeship Council, Labor Department, Albany, New York, telling them what he is interested in and asking where he might get training for that work.

Residents of other states might write their State Department of Labor at the state capital.

Changing a flat tire, Charles E. Davis, farmer from Medina, N.Y. was crushed to death when the car fell off the bumper jack. His widow and family received \$1500.00 check from local agent Lock Norton of Elba, N.Y.



Mr. Davis took out North American policies in September—nine months later in June the fatal accident happened. At the time Mrs. Davis received the check she wrote this note of thanks:

"I wish to express my thanks to Mr. Norton and North American for check for recent loss of my husband. Not realizing how suddenly these things happen, we could never afford any other insurance. We only had the insurance for a very short time."

Mrs. Elizabeth Davis

OTHER BENEFITS PAID

Bayard L. Bliss, Freedom, N.Y.	\$ 210.00	Raymond H. Keys, Schenectady, N.Y.	\$ 388.57
Fell—broke ribs		Auto Acc.—injured back & shoulder	
Earl B. Hill, Whitney Point, N.Y.	402.48	Wesley Martin, Scotia, N.Y.	643.00
Hit with chisel—cut tendon and thumb		Kicked by cow—broke arm, injuries	
William L. Rhodes, Little Valley, N.Y.	1638.57	Sophie Hilmeyer, Sprakers, N.Y.	664.65
Struck tractor drawbar—Injured back, ribs		Pushed by cow—Injured shoulder	
Gerald T. Butts, Cato, N.Y.	1567.80	Beatrice L. Callahan, Beaver Oams, N.Y.	299.56
Hand caught in gears—cut fingers & hand		Fell downstairs—Injured shoulder	
Isabell Giles, Union Springs, N.Y.	551.03	Seeley Poormon, Waterloo, N.Y.	110.51
Slipped & fell—broke wrist, injuries		Fell off truck—Injured elbow, shoulder	
Gordon H. Sikes, Kennedy, N.Y.	246.50	John K. LaForge, Rathbone, N.Y.	280.86
Auto Acc.—Injured back, arms, cuts		Fell from moving tractor—broke collarbone	
Carl Vilardo, Westfield, N.Y.	1520.00	Katherine Knight, Southampton, L.I., N.Y.	184.28
Fell from truck—Injured back		Tripped on rug—cut face, scalp	
Walter L. Bower, Pine City, N.Y.	199.29	Martha Cain, Jamesport, N.Y.	586.63
Slipped on drawbar—Injured rib & back		Caught hand in combine—cut fingers	
Clifford O. Stevens, Norwich, N.Y.	261.42	George Knapp, Sr., Trumansburg, N.Y.	244.34
Kicked by cow—broke leg		Slipped off ladder—broke ribs	
Wilson MacIntire, Cortland, N.Y.	140.00	Mary E. Crandall, Barton, N.Y.	126.43
Fell—broke arm		Pushed by cow—Injured back	
John Oales, Hobart, N.Y.	294.96	Stanley Wishinsky, Owego, N.Y.	447.78
Kicked by cow—head injuries		Slipped in silo chute—broke hip	
William E. Foster, Gowanda, N.Y.	419.75	Marian G. Freeman, Newfield, N.Y.	460.42
Slipped & fell in hole—Injured back		Fell—broke leg, injuries	
John L. Subik, Jr., Johnstown, N.Y.	1780.00	Ruth Oedrick, Dryden, N.Y.	376.25
Thrown from wagon—Injured back		Fell from stepladder—broke arm	
Walter Kruszelnicki, Darien Center, N.Y.	1010.70	Morris Sims, Kerhonkson, N.Y.	635.00
Auto Acc.—whiplash, injured head		Truck skidded on hill—Injured back	
Jennie Leto, Frankfort, N.Y.	120.00	Anna Mae Vanderwege, Palmyra, N.Y.	296.57
Fell—broke ankle		Slipped on steps—broke leg & toe	
Loyde Oelles, Philadelphia, N.Y.	106.00	Edmund Dates, Red Creek, N.Y.	134.00
Cow stepped on foot—broke toe		Thrown from wagon—Injured face & chest	
Ruth Fuller, Carthage, N.Y.	114.28	Nellah Lare, Oundee, N.Y.	1200.00
Fell off steps—broke arm		Fell over cupboard door—broke hip	
Leslie Lehman, Croghan, N.Y.	378.27	Ross Cummings, Knoxville, Pa.	672.81
Kicked by horse—cut forehead, injured knee		Kicked by cow—internal injuries	
John Palmer, Georgetown, N.Y.	150.00	Howard L. Blakeslee, Corry, Pa.	123.00
Thrown by cow—Injured back		Using electric saw—cut hand	
Alberta Snyder, Canastota, N.Y.	390.00	George Cleland Hall, Harrison Valley, Pa.	291.44
Snow fell on car—Injured head & spine		Fell in chute—head injuries	
William Hudson, Hilton, N.Y.	211.44	Pearl Petersen, Sussex, N.J.	1143.75
Slipped & fell—Injured back		Fell downstairs—broke leg, injuries	
Russell J. Smith, Spencerport, N.Y.	664.65	Ada Vogt, Mount Holly, N.J.	242.86
Auto Acc.—broke ribs, shock		Fell on rug—hip injury	
William C. Fisk, Fort Plain, N.Y.	1655.00	W. Peter Forman, Freehold, N.J.	193.00
Fell from ladder—broke heel & hip		Fell crossing fence—broke wrist	
Dora E. Prior, Sauquoit, N.Y.	431.63	John Winzinger, Sr., Bordentown, N.J.	125.50
Fell from ladder—broke leg		Hitch fell on foot—broke toe	
Samuel Pitcher, Warner, N.Y.	1637.29	Rose Banschier, Paulsboro, N.J.	111.43
Auto Acc.—broke arm, injuries		Slipped on concrete—broke wrist	
Emmett Baumgartner, Manlius, N.Y.	449.16	Fred Laird, Hoosac Tunnel, Mass.	250.00
Caught in V-belt—severe cut hand		Auto Acc.—whiplash injury	
Irene Hutchinson, Stanley, N.Y.	115.70	Harry Roach, East Corinth, Me.	966.05
Kicked by horse—Injured back		Run over by baler—broke ribs	
Everett Garrison, Middletown, N.Y.	110.00	Andrew L. Kuhre, Meriden, N.H.	121.66
Slipped lifting can—Injured back		Tractor jack-knifed—Injured foot	
Nathan Frank, Albion, N.Y.	784.15	Frank Gould, Chester Depot, Vt.	1095.35
Kicked by heifers—Injured chest & thigh		Hit by board—broke arm, cut head	
James W. Potter, West Monroe, N.Y.	949.50	Leroy M. Merrill, Randolph Center, Vt.	454.80
Auto Acc.—broke wrist, multiple cuts		Fell from truck—Injured knee	
Lawrence Roseboom, Westford, N.Y.	742.44	Florence Ward, Castleton, Vt.	361.41
Arm went through door—severe cuts		Fell off chair—broke wrist, injuries	
George Stone, Canton, N.Y.	398.73	Wendell H. Savery, Williamstown, Vt.	132.84
Tractor Acc.—broke leg		Hit by cow—broke rib	
Bernard Lantry, Helena, N.Y.	222.42		
Auto Acc.—Broke nose, concussion			

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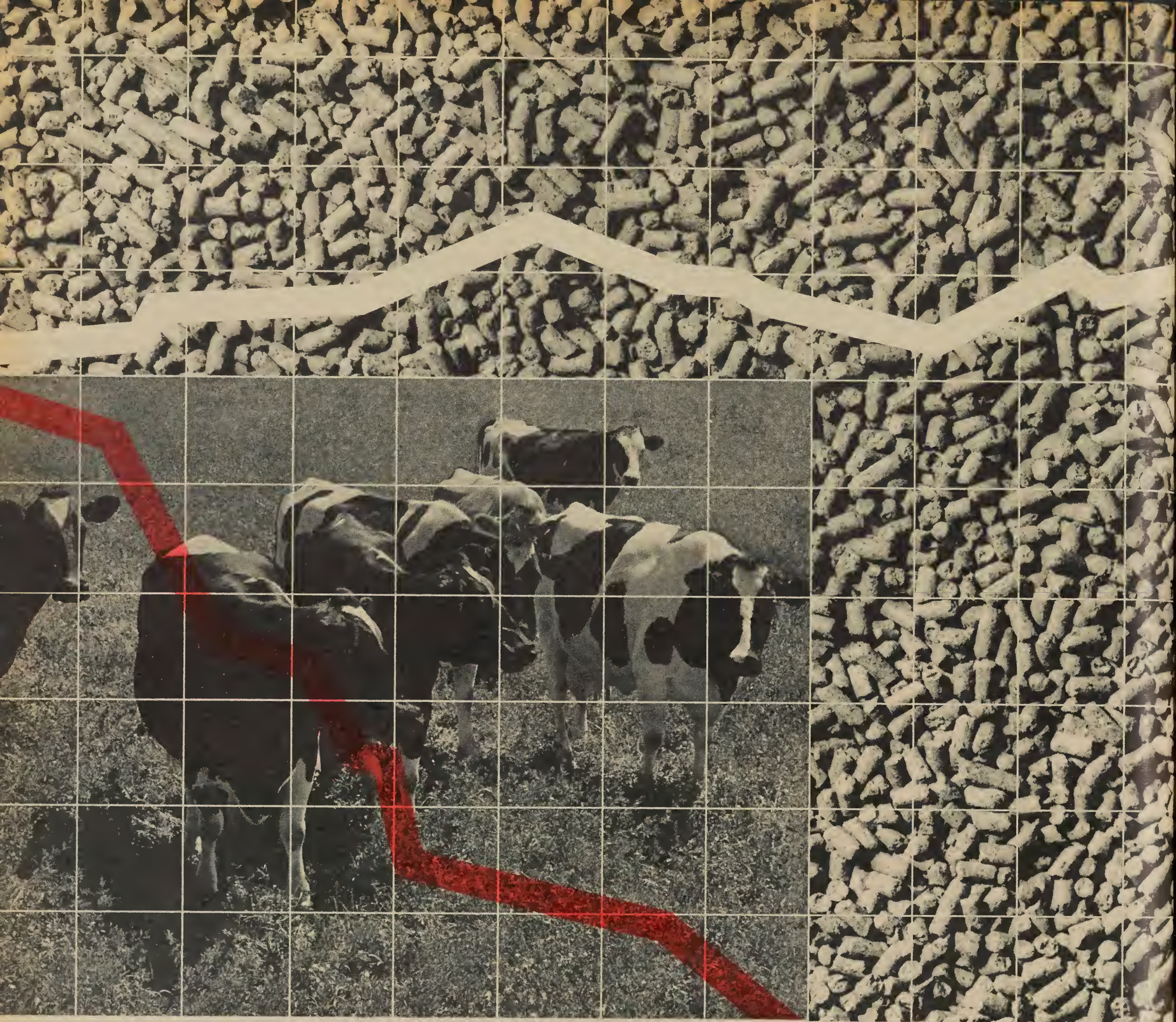


American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER

JUNE 1965





the new Agway:

high-energy Milkerpels keep your herd in condition to beat the summer slump

A cow's energy intake lags during hot weather. This reduction of energy is the major cause of summer slumps in milk production.

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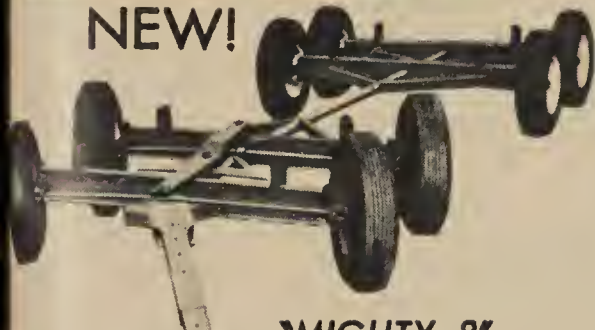
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American Agriculturist, June, 1965



American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 162 No. 6

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OUR COVER

The cynics would say that the young fellow in the white shirt is lost for the second time in one day! But let's be optimistic and hope that this is the beginning of fifty years of marital bliss ... with a minimum of blister.

Thanks are due the New Holland Machine Company Division of Sperry Rand Corporation for making possible this colorful cover.



Get your Snip Fly Bands up, before flies get here.

(Knocks flies down all season)

Fly control doesn't have to be a day-in, day-out struggle. Just spend the little time it takes to put up new Snip® fly bands and your fly problem will be solved for the entire season.

Snip fly bands go up in a matter of minutes with staples or tacks. House flies are attracted by the bright red color and the chemical bait. They land on the Snip bands, feed for a minute or so, then fall off dead.

Impregnated with new Dimetilan® insecticide, Snip bands have a killing power that lasts throughout the season to control fly populations.

With Snip, there's no mixing, no spraying, no mess. All it takes is one band per 100 square feet of ceiling area and house fly problems are solved ... for the entire season.

You can use Snip fly bands in all farm buildings ... milk houses, dairy barns, calf barns, loafing sheds, stables, pig parlors and poultry houses.

Here's what some farmers say about Snip: "The fly bands continued to kill until November when it got cold. I think they are the only fly control to use in the milk house."

"A very neat way to kill flies without any fuss or mess. A good fly killer."

"I have always had flies in the calf pens, but I haven't had any since I started using Snip fly bands."

So order your supply of Snip fly bands now, get them up early, and you'll go through an entire season without an annoying fly problem. Snip fly bands are available in convenient carry-cartons containing 25 bands. Look for Snip at your supplier.

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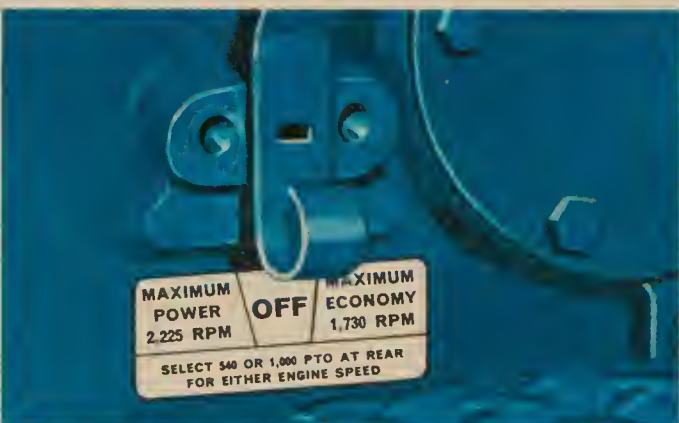
NEW

FORD COMMANDER 6000

More power, more brawn go into the new Commander 6000, today's most versatile 5-plow tractor. Here's power that leans in and pulls on the heavy jobs, in a tractor that's a real pleasure to handle on light jobs, too. And you'll get a pleasant surprise when you check the fuel gauge.

A responsive, rugged engine, coupled to the finest transmission and hydraulics yet developed, puts the new Commander 6000 at the top of the 5-plow class. Match this tractor against the best of the rest on most any job. You'll do it easier, faster with the 6000.

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Plowing in heavy soil demands power. The 6000 delivers! You'll hear and feel the trigger-quick response as the smooth, six-cylinder engine picks up in the tough spots. You'll like the stability and traction that make 6000 power so effective.

With Powr-Stor hydraulics you throttle back for safe control on turns, then lift the plow. At your command, stored energy from the hydraulic accumulator lifts heavy implements fast, even with the engine idling. Similar systems serve modern aircraft. It's a Ford 6000 exclusive.

Multi-Trol, another exclusive, permits seven settings from full draft control to full position control. You can match draft reaction to implement weight and soil conditions accurately and easily. Another reason why 6000 hydraulics excel!

Power shift, on-the-go, to *any* of *ten* speeds. It's easy as changing channels on your TV set—another way a 6000 saves time and fuel. Select-O-Speed, the original power-shift transmission for tractors, has now been user-proved by 75,000,000 hours. You'll see it copied more and more.

PTO machines work better with a 6000. You'll like the new margin of power in the engine and the complete on-the-go control. Vary travel speed by power shifting. Engage or disengage PTO with a smooth, hydraulically actuated power clutch.

PTO Power Selector gives rated PTO speeds (either 540 or 1000) at your choice of *two* engine speeds. For heavy jobs, speed of 2230 rpm gives power aplenty. On light jobs, 1725 rpm permits economy that owners of smaller tractors often envy.

The steering wheel stands when you do, as the comfortable seat tilts back, out of your way. Yes, fields seem smaller, days shorter when you farm with a 6000. Controls are in natural reach, easy to use. The deck is clear and uncluttered. Here's a level of comfort that others have yet to match.

For the best in 5-plow power, see your Ford tractor dealer now!

FORD



RISE WALT DISNEY'S MAGIC SKYWAY
AT THE FORD MOTOR COMPANY PAVILION,
NEW YORK WORLD'S FAIR



EDITORIALS

by GORDON CONKLIN

HELP! HELP!

All hell is busting loose over the farms of the country as Secretary of Labor Wirtz pushes his principle that no foreign farm workers shall be admitted to the U.S. so long as unemployed domestic workers are available.

The catch to this whole deal is that the vast majority of our unemployed are not willing or qualified to accept seasonal harvest employment on the vegetable and fruit farms of the land. Furthermore, unemployment insurance and public welfare benefits are high enough to provide attractive alternatives to sweating under a harvest sun.

Secretary Wirtz has also ordered that hourly earning guarantees be added to a piece rate wage system so that workers are guaranteed a specified amount per hour regardless of the number of containers picked. Don Green, manager of a huge apple operation at Chazy, New York, tells us that some local workers pick 15 or 20 boxes per day while some Bahaman workers go as high as 100 to 130 boxes a day . . . at 35 cents per box. In 1963, Chazy Orchards figures showed that local labor averaged to pick 36 boxes of apples per man day . . . Bahaman labor averaged 54 boxes.

As with any mandated minimum wage, unproductivity tends to be rewarded, and employment may be denied to those who most need it. Under a piece rate system, even a physically-handicapped person can work at his own speed and earn something . . . under an enforced minimum wage, he just isn't hired at all.

It looks to me as though Secretary Wirtz and his staff are long on theory, but short on realistic knowledge of farm problems and human nature. Farmers don't object to paying higher wages if added production costs can be passed along to the consumer, as are wage increases for steel workers and other industrial employees. However, it has been notoriously difficult to do this, and farmers can't absorb sharply increased costs within the thin margins they've been experiencing in recent years.

The majority of northeastern dairy and poultry farmers may not be vitally concerned about seasonal harvest labor, but they should go to bat on behalf of their neighbors . . . vegetable and fruit farmers who are really in a bind on this one. Let's at least push our legislators for modification of the heavy pressure by the architects of the Great Society so that the transition toward increased farm labor costs can be done at a reasonable rate of speed.

HEIFER PROJECT

Not long ago, I hied myself off to the Dominican Republic to accompany a planeload of purebred Holstein dairy cattle destined to help increase the genetic potential of that country's dairy herds. Sponsored by Heifer Project, Inc., the shipment came from some outstanding Central New York dairy herds, and was made possible by contributions from 23 individuals; nine service clubs; eleven church Youth Fellowships, Vacation Bible Schools, and Sunday Schools; eleven churches of seven denominations; two 4-H's and two Holstein breeders gave animals outright.

American Agriculturist, June, 1965

Heifer Project, Inc. is a non-profit organization financed by voluntary contributions that shares livestock, poultry, technical assistance, and educational information with people in underdeveloped areas over the world. Its executive director is Thurl Metzger, whose address is Box 269, North Manchester, Indiana 46962; there are also regional offices at Room 611, 14 Beacon St., Boston, Massachusetts 02108, and at Box 278, Upper Darby, Pennsylvania 19084. Roger Cross, Fayetteville, New York 13066, is the Central New York Representative.

Its purpose is two-fold . . . to help meet the immediate problem of hunger with assistance to meet nutritional needs and, second, to supply long-range potential (living animals to produce and reproduce) for helping people to help themselves.

The Dominican Republic, which has been so much in the news lately, occupies the eastern two-thirds of the island of Hispaniola, southeast of Cuba. About two-thirds of the country's three million people are farmers . . . when our politicians make doomsday speeches about the decline in numbers of farmers in the United States, let's remember we wouldn't want to change places with countries where this hasn't happened!

The Dominican Republic is a land of enormous contrast between the rich and the poor; the rich haven't yet grasped the idea that they could become even richer if they would encourage the development of an informed and productive middle class. Hopefully, this will change over the generations.

From this and other contacts with the organization, I conclude that Heifer Project is doing much to help, in a practical way, the constructive development of nations who desperately want an abundance similar to that of our nation. Instead of making people dependent on handouts, it is encouraging them to grab their bootstraps and develop their agriculture to the point where it will, like ours, provide a foundation for industrial growth. Incidentally, this organization has a lot less "overhead" than do some of the publicly-financed foreign aid programs, so each of their dollars goes further in actually getting things done.

LINE FENCES

Our Service Bureau (Publisher's Desk), ably handled by Mrs. Marj Parsons, receives hundreds of letters every year asking for help with all kinds of problems.

One of the more common queries over the years concerns line fences. There's an old saying, "Good fences make good neighbors;" it seems to be equally true that poor fences can lead to some mighty poor neighboring.

The line fence laws in most northeastern states were passed back in the days when almost all rural property holders were farmers . . . the majority of whom had livestock of some sort running on summer pasture. But now the majority of people who live in the open country are not farmers . . . in New York State, for instance, seven out of ten rural residents are non-farmers. These people sometimes have livestock, but most of them do not, and therefore find it difficult to understand why they should fence half the property line be-

tween their land and the neighboring dairyman's pasture.

Besides controlling critters, a line fence has at least one other purpose . . . to mark property boundary lines. However, rural non-farmers argue that they can mark property lines very adequately just by driving steel pegs or posts along the line, without the added expense of wire, or the sweat (or hired labor expense) of erection. Most of them just can't see why they should be forced to shoulder a portion of the production costs of a neighboring dairy farm, knowing that building half the line fence for 30 years won't put a nickel in their pockets.

Pastures are constantly becoming less important in terms of providing roughage for northeastern dairy cattle. This means that more and more "zero-pasture" dairymen, whose cows never roam over more than an exercise lot next to the barn, will be faced with the prospect of line fence maintenance on behalf of a neighbor who still pastures his cows.

What, if anything, needs to be done about existing fencing laws? What has been your experience, or the experience of others in your community, concerning the most practical way to resolve disputes over line fences? I'd be glad to know!

UNANIMOUS CHOICE

Saw a report the other day telling of a survey among college students during which they were asked about foods they liked. Dozens of items were mentioned, and results ranged all the way from a low of 30 percent (Spanish omelet) up to one food item that all students said they liked. What do you suppose it was . . . milk, steak, a hamburger? Nope, it was strawberry shortcake!

For the school-age youngsters, June is the month school is let out. In the next older age group, the excitement is all about the June weddings. For all us oldsters (over 35), it's a month when we get a breather from running up those giant bills for heating the house. But every age group can agree on something . . . and this is pretty unusual! Strawberry shortcake is just plain scrumptious, and there's no better month than June to sit out on the porch in the evening and tie into a big wedge of this delight. Be sure it's topped with a huge gob of real whipped cream! Man, that's really livin'!

CASE FOR SOYBEANS

The soybean seems to be continuing as one of the "glamour" crops in this country. On every side is evidence of its continuing profitability, in contrast to some other agricultural products. The predictions for the coming year are as glowing as ever in terms of returns to farmers.

As I have commented before, it seems that New York State may be missing a bet in terms of this crop. A map prepared by the Soybean Digest shows 10 "best adapted varieties" for Minnesota, 5 in Wisconsin, 6 in Michigan, 6 in Ontario (Canada) . . . and none for New York.

Under the leadership of Professor H. A. MacDonald at Cornell University, research has been undertaken in New York to try to develop practices and varieties that will overcome the chronic problem of low yields that has been the case in past years. I think farmers should promote such efforts and push for exploring every possibility in this direction.

Soybeans have been a very profitable crop for thousands of farmers in states with similar climates to that of New York. Empire State farmers should have the opportunity of sharing in the profit potential brought about by the expansion over the whole world in demand for this high-protein grain.

FIRST CLASS MAIL



GOVERNMENT PROGRAMS

The general public is given information by USDA, Congress, and some newspapers that gives the impression that farmers in general are willingly producing surplus in spite of government efforts to curb them. These government programs seem to have the opposite effect, and a great many farmers are very troubled by the situation.

A good example is the wheat business. A couple of years ago, USDA came up with a drastic wheat program with a take-it-or-leave-it ultimatum . . . vote the program down and the government will get out of the wheat business, they said. The wheat growers took them at their word and voted against the proposed program by a good margin. But the first thing we knew, a nice new wheat program was quietly formed and just as quietly put through Congress . . . and the government was still in the wheat business, against the will of the majority of producers!

The milk situation in this area is much the same. Individual farmers cannot produce for the needs of the market, as all the milk is pooled by the Federal Marketing Order. This Order has good points as well as bad; as it stands now, no one can afford to limit his production because all he would do would be to lower his own gross income.

I wish information like this could be clearly and accurately put before the public. I believe it would lead to better understanding between farmers and their urban customers. — *James R. Church, R.D. 2, Carthage, New York*

A REPLY

I was reading through the interesting and informative letters printed in your "First Class Mail" column and came upon the short, but much inflamed, letter written by "Burned Up" of Massena, New York, comparing railroad featherbedding to the subsidizing of farmers.

Well, frankly, I am not in favor of either program, but I would like to ask this: If the railroad men had been given the opportunity to vote against this featherbedding, would they have done so? Compare this with the farmers who, in May, 1963, voted against the Wheat Control Program, which, in spite of their disapproval, was put through by the Administration on the Cotton-Wheat Bill.

As for being more self-reliant, I definitely agree that farmers are! The farmer produces something

which every person in this world needs in order to survive. Can the same be said of what is manufactured by city people . . . things such as radios, television sets, automobiles, etc.? Also, the farmer produces his product at a very minimum of cost; for instance, he receives eight cents per quart for milk, three cents for the wheat in a loaf of bread. It was once said that if the farmer gave his wheat away free, bread would still cost fifteen cents a loaf. So, who reaps the harvest in this vicious circle?

Does the railroad man work seven days a week, every week of the year? Does he work 14 to 15 hours a day, and sometimes even longer? No vacations, no overtime, no unemployment (which, incidentally, is not paid by the worker). Social Security? Yes, but the farmer pays all of his. Now really, is this a fair comparison when you think of it and know a few more facts?

I do not know if "Burned Up" is a railroad man or not, and I cannot dispute the fact that he works "damned hard" for his wages; but does his wife and family also earn their share of the net earnings for the year? Most of the earnings of a farmer are made up of contributions of the whole family.

In spite of the lower income of the farmer, he still must pay the prices listed on every piece of merchandise produced by the city worker. Can the city worker produce his product as cheaply as the farmer? Does your city wage scale compare with the farmer's wage? I'm afraid there is quite a gap between the two workers; but in spite of the lower income, the farmer is still able to survive. Why? Because he is more self-reliant.

I just had to write some answer to "Burned Up." Perhaps he won't read this, but I feel better. My loyalty still remains with the farmer, the backbone of the country, for without him where would the food come from? Our country produces a surplus because of our industrious, hard-working, non-complaining, stubborn farmer. For these traits he is criticized? — *Mrs. William H. Weir, Schaghticoke, N.Y.*

FLORAL DISENCHANTMENT

Mrs. Robert Foote of R.D. 1, Hebron, Connecticut, recently sent us an amusingly written poem concerning her family's struggle with multiflora rose hedges. These are the roses, you know, that are advertised as being "living fences" . . . but all too often they prove to be "impossible fences." They are just too aggressive, and awfully hard to curtail once they get going.

Here's the way Mrs. Foote described the struggles of "Farmer Bill" when he tackled the job of trying to get rid of some multifloras that had far exceeded his expectations:

"He offered without stint the third degree
With 2-4-5-T and X-Y-Z,
To all of which they gave little heed,
But calmly started going to seed.
With a mighty bulldozer at his command
He sought to mangle them with the land,
But many could be tackled only by hand.
Nobody knows the length of those shoots,
Nobody knows the strength of those thorns,
Nobody knows the spread of those roots,
Unless he has taken the job by the horns!"

FIRSTHAND

ACQUAINTANCE

We have had a fifteen year acquaintance with New Jersey's outrageous wildlife problems, as well as with the classic game management position of "providing as many healthy deer for as many sportsmen as possible." We have a firsthand acquaintance with the political unpopularity of promoting wildlife management with justice, and are convinced that legislators will continue to ignore the problem until they are "backed into a corner."

The irony of the matter is that

as owners we pay the real estate taxes on the land that is made useless to us, we try to plant and fertilize the farm or garden, we have to string the stupid fences which are bashed in in a season, we spray the stinking repellents, and we, when desperate, are granted the special privilege of shooting the marauding beasts which plague us in season and out. You, too, may have heard the white-tailed deer referred to as "America's sacred cow," and the designation is less humorous than accurate.

It appears to us that the time has come for thousands of farmers and country residents to assert their civil rights, notwithstanding powerful sportsmen's organizations and state conservation departments, and demand that the use of their land be returned to them. Taxes continue to rise, and government must be forced to recognize the plurality of interests of its citizens as well as the basic justice of protecting private property from unnecessary destruction.

The history of the struggle about game management in New Jersey is replete with token deer control measures designed to pacify those affected. The time is long overdue for all the people's deer to be provided for by all the people.

We hope that farm organizations may be encouraged to resolve their historic differences of opinion with regard to game management and decide whether they are farmers first and foremost, or if they are sportsmen first; also that they make such united opinion count in the state capitals where legislators should legislate. — *Philip H. Schmitt, Jr. Far Hills, New Jersey*

UNUSUAL OX YOKE

Remember the request we ran for information about an unusual ox yoke? James A. Keillor, Wading River, New York 11792, is the owner of the yoke, and he reports an "overwhelming response" by readers. He further reports as follows:

"It will interest everyone to know the multiple uses for which this yoke was suitable. Many people have had experience with this type of yoke, and the uses may be summarized as follows in the order of their importance:

Cultivating a single or double row

Ditching

Training of young steers — frequently with a sharpened pole to keep them from backing

Hillside work before the advent of the slide yoke

Roping hay from a windrow to the stack

Moving a stone boat and elevating the front

Logging

Drawing a Eureka mower with the cutting bar on front. (It was possible with this yoke to drive instead of leading at the left side.)

Working on each side of a railroad track

American Agriculturist, June, 1965



This is the 50th year that the USDA has provided a Fruit and Vegetable Market News Service. Federal-State market reporter John Capus (right) looks at a wholesale market in Philadelphia, Pennsylvania, to obtain information on prices, supplies, and quality of produce.

**Purina is proud of
Roger Morse...
known in New York's
Finger Lakes
Region as...**

the man in the Checkerboard tie



Today's farmer must have the managerial ability to make sound decisions so he can analyze his costs and adjust his production to the highest rate of efficiency. Because he is a more informed farmer than a decade ago, he appreciates quality and service.

That's why Roger Morse is a recognized authority on livestock and poultry feeding and management. He knows what it takes to make money in the production of meat, milk and eggs. He has made it his business to find out, because in our business, the customer is "The Boss." We must serve and satisfy him.

In 18 years with Purina, Roger has never stopped learning how to give the farmers in his area the kind of advice, leadership and service that it takes to make top returns from feed dollars. To this he is dedicated. He has taken part in every Purina training program offered since he joined our Company and is one of our most capable trainers of younger men.

Roger headquarters in Auburn and works with Purina feeders and farm people in Schuyler, Seneca, Tompkins, Cayuga,

Onondaga and Oswego Counties. His customers range from broad-shouldered, cost-conscious dairymen to farm boys and girls raising 4-H and FFA project animals.

Yes, Purina is proud of Roger Morse and the part he plays in the growth of the agriculture economy in his area. Like all the men in the Checkerboard tie, he wants to see his customers prosper. These men all have one thing in common—they serve. And so does Roger Morse and the man in the Checkerboard tie in your part of the state.

Typical of the exciting new programs which come to you through your man in the Checkerboard tie is Purina's brand-new milking ration—Golden Bulky. It's light and fluffy... sweet... smells good and cows love it. It's extremely good for cows on pasture and fits into the feeding program of practically every dairy herd. For further information on this fine new ration, your local Purina salesman—the man in the Checkerboard tie—is the man to see.

Ralston Purina Company • Checkerboard Square • St. Louis, Mo.





Why settle for less
when the best roofing
your money can buy
costs the least of them all?



*Galvanized
Steel Roofing
by Bethlehem*



We're Winning Some Battles but...

WILL WE WIN THE WAR?

by Johnny Huttar



ONE SET of Burma Shave signs along our highways which always gives me a chuckle is the one that goes:

What You Shouted Is Doubtless True, But Did You Hear What He Called You?

It comes to mind when I think of some of the things I see going on in the production and marketing of eggs.

Here's what I mean by the "battles" referred to in the title of this article. There are four major egg-producing areas in the country... our Northeast, the South, the Midwest, and the Pacific Coast.

In each of these areas, individual egg producers have been battling to cut their costs in producing these eggs. There is, of course, a certain amount of comparison and competition between these producers; you can't be much higher than your neighbor and make any money, especially if he sells in the same market.

Then there is a "battle," or rather competition between producing areas. Our market competition comes mostly from the South and Midwest. We can't let our production costs get much out of line with producers in these areas, because they sell lots of eggs in our markets. History tells us that over the long pull the level of costs and the level of prices are closely related.

When I say we are winning "battles" I mean that an increasing number of northeastern poultrymen have brought their costs into the range of those in the South, and not much above those of good poultrymen in the Midwest. We know it can be done, and we're developing practical means for doing this.

The "war" I refer to is the overall fight all egg producers are waging against whatever or whomever is responsible for the downward trend in the base price for market eggs.

Who Is Responsible?

Some folks feel sure that the power and buying policies of the large chain store companies will decide the outcome of the war... and they say we are losing it. This may be true. On the other hand, a good case can be made to show that the people producing the eggs are more responsible for the level of egg prices than anyone else. Here's where the Burma Shave jingle applies. Let me show you why I say this.

A weekly government report gives the number of cases of eggs moving off farms into commercial egg-handling channels. In the five years 1960 through 1964 the volume of these eggs increased each year... the total increase has been

18 percent. In the same five years the average price of eggs has dropped each year... a total of 6 cents a dozen for the period. By the middle of 1965 I would expect production (as reflected in the movement off farms) to begin falling behind a year earlier. As a result, I think you'll see prices showing improvement.

It is this direct relationship between total production and prices which the boosters for "production controls" use as a basis for their promotion for such controls. Most poultrymen don't agree with this. They say the egg prices themselves are the quickest, surest and least painful way to control production. I think the record bears them out. The very low egg prices of 1959 were quickly followed by cutbacks in production. This gave us at least four good price years in 1960 through 1963, and not too bad prices in most of 1964.

Area Competition

For the last six years I have traveled into the South to see what poultrymen, feedmen, hatcheries and egg handlers were doing. I concentrated on the South because the increasing number of eggs which they ship to our northeastern markets are of a quality which compares favorably with our own. Their competition has been rough on us. It's not the right kind of competition. I've said this up here, and I've told it to many Southerners both individually and in meetings.

As I'm sure you all know, the southeastern and Gulf states have stepped up their production much faster than we or any other part of the country. They have more than doubled in the last five years. They did this without knowing exactly where they are going to sell all the eggs. They eyed our big northeastern markets and worked their way in by cutting prices; most of these eggs sold for quite a bit less than their value in relation to ours. This has dragged us down without doing themselves any good.

I thought I saw encouraging signs on my Southern trip in April. The bigger producers are beginning to believe and feel this. There's even some talk of cooperative and better-planned selling. It takes a financial pinch, like we're getting so far this year, to get the message across. Make no mistake about it, these egg prices are hurting them too. I saw the same signs in January of 1960.

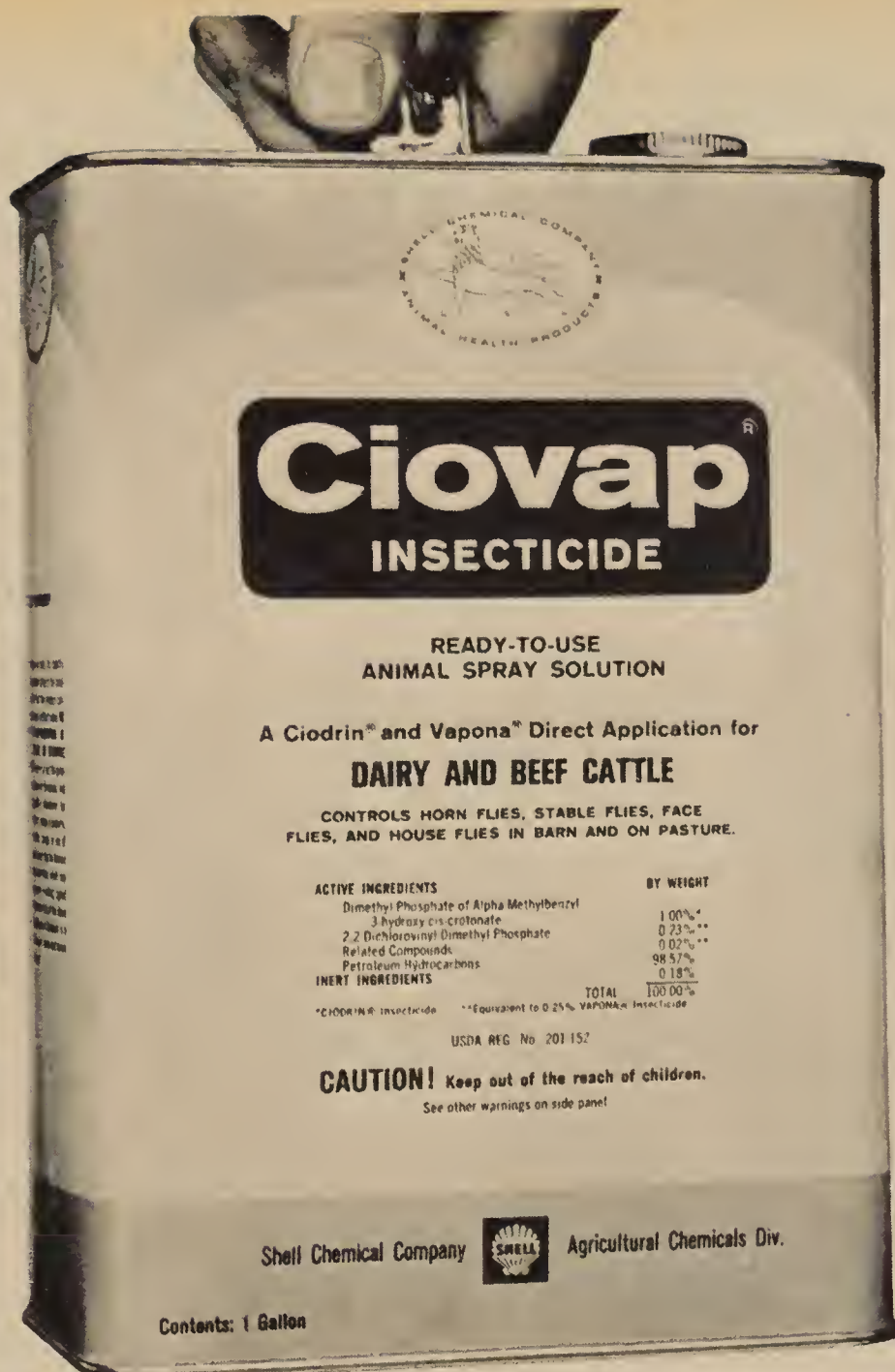
The majority of Southern hens are housed in pretty open houses with dirt floors. They are inexpensive and, for a time at least, they

(Continued on page 14)

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Spray with Ciovap and cows are freed from biting, irritating flies for the rest of the day—in the barn and out on pasture.



These cows are grazing efficiently, protected by Ciovap. Horn flies, face flies, and stable flies can't interfere with their production.

Look for this remarkable new dairy and beef insecticide in red-and-yellow cans carrying the distinctive Shell emblem. Available in 1- and 5-gallon sizes.

NEW DAIRY FLY CONTROL

Shell's amazing Ciovap® Insecticide gives you a complete fly control program from a single spray.

CIOVAP controls all major flies all day long—on pasture as well as in the barn. Ciovap is a combination of two Shell insecticides, Ciodrin® and Vapona®, each in itself a unique fly control product. The ratio: 1% Ciodrin and 1/4% Vapona. The result: Ciovap gives you more overall fly control than any other product.

How Ciovap works

Ciovap acts three ways, and controls horn flies, face flies, stable flies, and house flies:

1. The Vapona in a Ciovap application gives cows relief as soon as you apply the spray—in barn or holding area.
2. Then the Vapona volatilizes and spreads, to kill flies all over the barn.
3. The Ciodrin part of the Ciovap spray takes over where the Vapona leaves off and keeps the cows protected for the rest of the day.

The staying power of Ciodrin completes the program by stopping the flies

that attack cows on pasture. Animals can spend their time grazing, resting, and making milk—not fighting flies.

Saves time and money

The complete barn and pasture fly control of Ciovap eliminates the need to buy several kinds of fly control chemicals. And you won't have to spend time putting on special face fly treatments or making separate applications for horn fly control. One Ciovap spray gives you a day-long fly control program.

Ciovap won't endanger milk purity when applied according to label directions.

Because Ciovap controls face fly (in addition to horn fly, stable fly and house fly) it helps you keep eye disease problems to a minimum.



Easy application

No mixing. Spray Ciovap just as it comes from the can. Put a maximum of 2 ounces of Ciovap on each animal. Make sure all parts of the body are covered, including belly and legs.

Ciovap is a brand name product of Shell. Ask for it where you normally buy farm chemicals. For more information write Shell Chemical Company, Agricultural Chemicals Division, 2299 Vauxhall Road, Union, New Jersey.

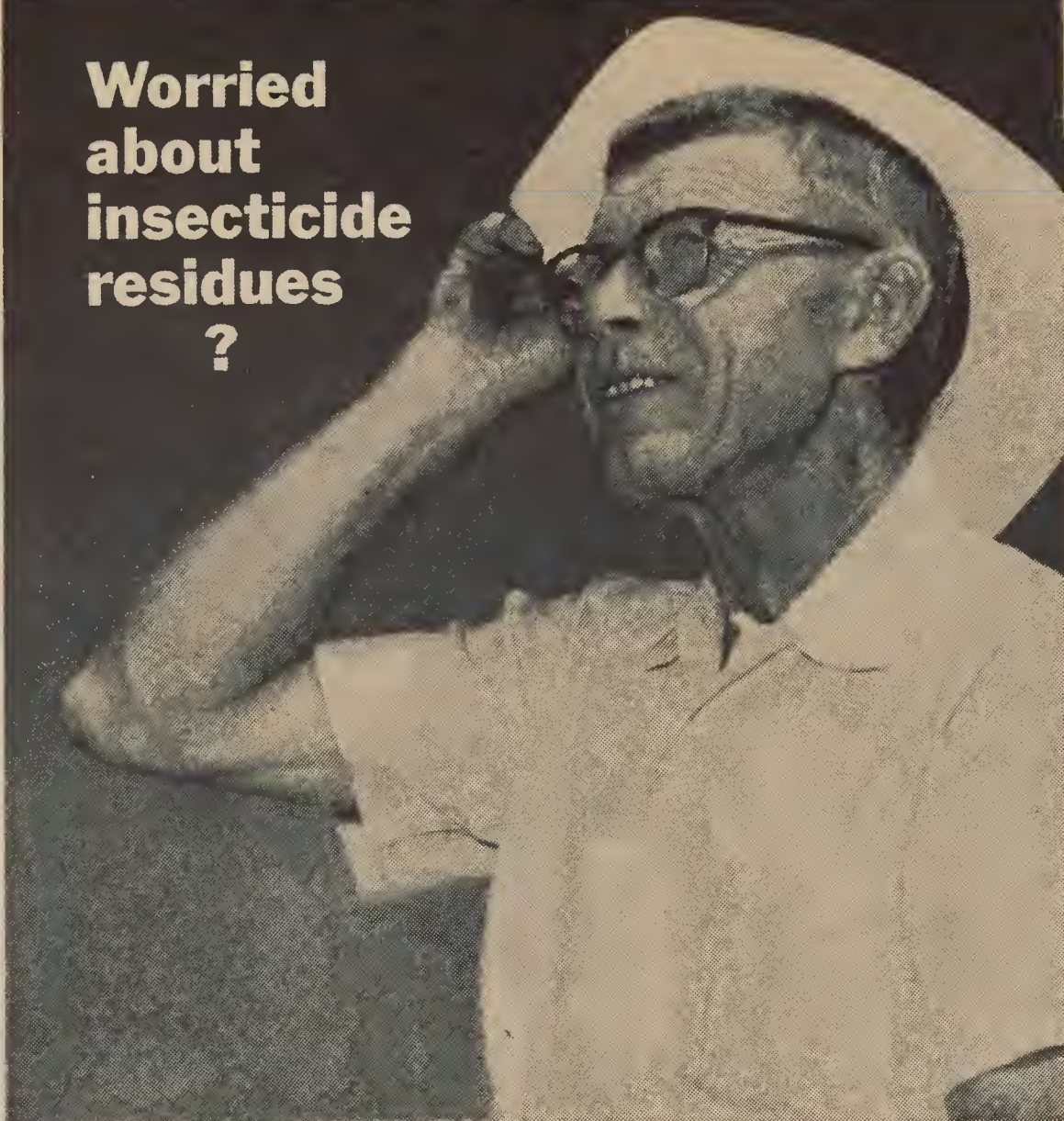
Before using any pesticide always read and carefully follow label directions.



Ciovap®
Insecticide

A PRODUCT OF SHELL CHEMICAL COMPANY

Worried about insecticide residues ?



Time to use **SEVIN**[®] CARBARYL INSECTICIDE

Our constant battle...

to prevent insects from destroying our crops results in another continuing struggle to avoid harmful residues of insecticides on our harvested crops. As longer-lasting persistent insecticides have been developed, residue problems have multiplied.

Many of these worries vanish...

when you use SEVIN[®] carbaryl insecticide. This long-lasting insect destroyer controls many pests with relatively few applications per season. Though still potent against insects at harvest time, the SEVIN residue is not a problem to the humans or livestock that eat the food or feed. The relatively low toxicity of SEVIN to humans and warm blooded animals makes this possible. This safety factor also holds true for fish and wildlife.

Drift from row crops...

to nearby pastures and feed crops is another hazard that you can discount almost entirely by using SEVIN insecticide. Livestock can graze even on the day of application. Residue of SEVIN on forage and feed does not contaminate milk, meat or eggs. And SEVIN insecticide breaks down quickly in the soil, so contamination of the ground for future crops is no problem.

You can be sure...

of crop insect control with the least possible residue problems when you use a SEVIN spray or dust program according to label directions. Use of some persistent pesticides is now being strictly limited. For excellent crop insect control with many built-in safety factors, more and more farmers each year are using SEVIN to control 160 different insect pests of 90 different crops.

You can be a good neighbor and reduce residue hazards for everyone while you are a good farmer and control crop insects with SEVIN. Ask your nearby supplier for the new list of recommended uses. Or write Union Carbide Agricultural Chemicals, 270 Park Ave., New York, N.Y. 10017.



**AGRICULTURAL
CHEMICALS**

SEVIN is the registered trade mark of Union Carbide Corporation for carbaryl insecticide.



Gayway Farm Notes

by HAROLD HAWLEY

FARMER PSYCHOLOGY

In our area, as in much of the rest of the Northeast, it was dry last year, and we had an open winter with little rain or snow. In March much fertilizer was being bulk spread because the fields were so dry and firm. Then along came April and some rain. At first everyone said "fine, we sure need it." Then as it continued cold and wet slowing up spring work, the comments seemed to be made with less enthusiasm. Everyone knew we needed the rain and lots, lots more of it... but then, too, everyone was anxious to get at the plowing and planting.

In other years of late spring, it has always been common to gripe about what a backward season we are having. So far this year I've not heard this. Emotions are mixed about not getting the crops in early, but the rain is so much appreciated it sounds a little off-color to beef about the weather.

SUCCESS FORMULA

We are indebted to Louis Longo of Glastonbury, Connecticut, for a real valuable three line formula for a profitable operation. I'm guessing Louis follows this pretty closely himself, as he seems to have worked out the ingredients for progress and profit in his business. He says: "Profit is the result of

Proper Investigation
Proper Planning
Proper Application."

That pretty much gets it said. As I reflect on some of our failures, they mostly trace back to not doing one or another of those three steps well.

HIDDEN TREASURE

It's not necessary to go skin diving in the Caribbean to find hidden treasures in the wrecks of old Spanish frigates. Many a farmer has something almost as precious as Spanish gold right at home. Have you heard what is being asked and paid for old driving harness? Light harness, whether single or double, is worth its weight in something or other. Of course, it's getting scarce, and it's tough to find someone to fix it up, but the buyers are ready and willing if good harness can be found.

It's similar to other forms of early Americana. When does old junk suddenly become an antique

or a marketable item such as this harness? When I think of all the leather we have used for everything else but, it makes me shudder. Who could have foreseen that the horse boom would happen and bring with it a big demand for all the various paraphernalia and trappings that were and still are a part of the world of the horse.

END OF AN ERA

We've been longer making the final switch than most, but finally the time came to sell the bull and go entirely to A. I. We've been using A. I. for years but continued to keep a bull too. Our reason was simply that we were after a lot of milk and also good dispositions, but not butterfat test. We thought we could come nearer to getting it by picking a bull of our own.

It now seems hard to justify keeping a bull, since we've been able to select an A. I. sire who seems likely to help our milk production and maybe do a little better for the udders on our next generation. This is a place where we've not done as well as we would like. It's probably also a minor thing, but we thought we got a little more uniformity in the bunch by using one bull. This we can still get by using frozen semen from just one or two bulls.

At any rate, it's a new look around the place with no bull to greet and challenge all comers — a change for the better, I suspect.

ADJUSTMENTS

Surely where all this change will lead us nobody knows. I recently heard a panel of real good farmers discuss their operation and some of their plans for future changes. These men have already moved way ahead of the crowd, but the end is not yet. In fact, like the fellow who had the bull by the tail, they or we can't let go or cease to change. As long as innovations occur, those who adopt them stay competitive and those who do not are at a disadvantage. This doesn't mean the end of them, but it makes it tougher.

Not everyone wants to engage in this mad chase for dollars and success. In fact, many would much prefer just to make a decent living for a few more years and then call it quits. However, the choice isn't that easy. These technological changes others adopt will increase supply and lower costs, making margins smaller in most cases and

(Continued on next page)

putting the squeeze on those not adopting changes.

All this gives me no great satisfaction. We lose much of real value as we move from the kind of rural life many of us knew as kids to the high pressure, competitive, more business-like modern farming situation. The more leisurely, neighborly, easy-going era slips away and its going leaves us a little poorer. Let us hope that all of us will be smart enough to make our technology and progress get us more leisure and a higher standard of living — not only physical but moral, ethical, and spiritual. Unless we do this the machine, the system, the business will be running us, not we running it.

Lest we let ourselves become slaves to progress, let's resolve that progress shall bring to us those basic and lasting rewards which come to those who have been fortunate enough to strike a balance between ambition and satisfaction, between desire and reward, and between now and hereafter.

TREES

Unlike Joyce Kilmer, no poem comes from my pen . . . just some homely comment about varieties and such. For years we've admired red maples and white birch, so naturally thought we would plant one or two of each when we needed to replace some trees around the house. This spring we decided to plant a couple of trees so got to doing a little looking and reading. What do you suppose we ended up planting? Two English walnut trees — a variety from Poland supposed to be winter hardy here. They do make nice shade and fine nuts, but are quite a switch from red maple or white birch. Actually, we ended up also getting a maple later.

All this led to thoughts about how species of trees seem to thrive and then just disappear. When we first started to farm twenty years ago, the fence rows had many, many chokecherry trees. Doris made chokecherry jam almost by the bushel. I don't know where there are any now. A hard winter was the apparent cause for their disappearance but I'll bet there was something else involved to wipe out every last one.

It brings to mind the American chestnut trees, which seemed to be forever gone until some dedicated scientists developed new hybrids and crosses to develop a blight resistant tree. There now seems to be reason for believing that the majestic American chestnut tree will once again be part of our woodland scene . . . though not for a few years yet.

It's always been a puzzle why a few specimens of a tree will survive even a real killing disease. We have a small patch of long-leaf white pine such as was once commonplace over much of the area. It's about the only such stand I know anything about. Why it survived is a mystery.

The spread of the Dutch elm disease is another tragedy, but here, too, we see specimens that

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look to be holding their own. I suppose that in trees as in other plants we may have to accept some of the inevitable changes of nature — modified as much as our best scientific brains can bring this about.

Pure Stands

Another little puzzle is why and how some species of tree are able to take over an area and exist in almost pure stands, whereas in most places several kinds exist and thrive together. Several years ago I was much impressed by a pure stand of black locust on a part of the Howland's Island Game Refuge. This was once farmland but hasn't been used for perhaps 20

to 25 years. The locust in this stand were thick and straight and surprisingly uniform in size as though they had all got started pretty much together. Not only must there have been a lot of seed blowing around, but conditions must have been favorable . . . and the locust must have out-competed everything else.

We've all seen how through time some species of tree will take over simply by outseeding and out-competing others, or perhaps because other varieties get cut for lumber and this variety is left. Beech is an example of this in our woods. They do say that eventually it will take over and become a pure stand. Surely the locust didn't

do this; it was the first growth of trees after farming ceased.

An interesting example of a climax or final variety of trees can be found in some of the rainforests on the eastern slopes of the Andes Mountains in Peru and Brazil. Here torrential rains and high temperatures have leached the soil and the land is so depleted that almost nothing can grow except the existing species. One can do a little guessing and say that these trees not only were best adapted to the conditions but also that through time they made some adjustments of their own to survive in the changing conditions of their environment. Isn't nature wonderful — and puzzling?



for you
from J&J

Now you can get this beautiful 5-piece place setting of contemporary "Bright Stream" pattern tableware — a retail value of at least \$4.00 for only \$2.00 — each time you buy a carton of Johnson & Johnson Milk Filters. The setting includes salad fork, dinner fork, knife, soup spoon and teaspoon, all in handsome, durable stainless steel and ebony plastic. Any home would be graced by this corrosion-resistant, dishwasher-safe "Bright Stream" tableware that will provide years of beautiful service. And you can later add gorgeous companion pieces such as ice tea spoons, steak knives, serving sets and others.

You really get two premiums from Johnson & Johnson — "Bright Stream" tableware and "top-quality" milk filtration. No other filter can give you the assurance of cleaner milk, reduced risk of rejection that you get with filters from Johnson & Johnson — The Most Trusted Name In Milk Filtration.

Don't wait — cash in on this exciting premium offer now! Stock up on J&J Milk Filters and start enjoying your "Bright Stream" tableware. Send in the coupon below, together with \$2.00 and the front lid flap from a carton of J&J Milk Filters (or suitable proof of purchase). Your supplier can provide coupons to complete your service.

Send to: J&J Tableware Offer, P.O. Box 5898,
Chicago, Illinois 60677

Enclosed find \$2.00 and 1 front lid flap from a carton of Johnson & Johnson Milk Filters. (No cash or stamps, please.) Please send my place setting of "Bright Stream" tableware.

Name _____

Address _____

Town _____ State _____ Zip Code _____

Your Supplier's Name _____

Brand Formerly Used _____

This offer is void in areas where prohibited, taxed or otherwise restricted by law, and limited to the United States. Offer expires December 31, 1966

Johnson & Johnson

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Remember when bad weather meant weather-beaten potatoes?

Not any more. Now there's Polyram. A new fungicide from Niagara.

Polyram controls early and late blight on potatoes. No ifs. No buts. No maybes.

And does much more.

Polyram yields more No. 1 potatoes. More uniform potatoes. Potatoes chippers like.

You'll like using Polyram. There've been no known injuries to potato foliage. It stays in suspension—spreads evenly, doesn't clog nozzles. It's compatible with sodium arsenite and with potato insecticides in common use.

So starting right now forget all your old ideas about blight control. Remember—and get—

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SAVE LABOR, INCREASE PRODUCTION WITH A FARMEC FEEDER

That's what all Farmec feeders are designed to do—increase beef and milk production for more farm profit through mechanical feeding. And, you have three great choices when you come to Farmec for feeders. You can choose (1) a 571 Cycle Feeder with automatic uniform distribution of feed . . . (2) a versatile 561 Trough Feeder complete with its own bunk . . . or (3) a 541 Auger Feeder for high-capacity economy feeding. All cut feeding time . . . eliminate manhours . . . and increase beef and milk production.

NOW'S THE TIME TO CHOOSE A FARMEC FEEDER

Right now . . . because the savings you'll start making immediately will get those profits moving your way that much sooner. Your Farmec dealer will gladly discuss the Farmec feeder for you. For details, write:

FARMEC

Specialists in Farmstead Mechanization

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Smoketown, Penna.



DAIRY ENGINEERS

Tom Snyder likes the new barn arrangement, comments especially on lower bedding requirements.

AT THEIR dairy farm near Churchville, New York, Tom and Henry Snyder are operating a business begun by their father, the late Fred Snyder. They have used for the second winter a free-stall setup . . . moving their dairy herd out of a good conventional stable now used for storing hay and stabling dry cows and young cattle.

The newer barn is 50 x 324 feet . . . that's 24 feet longer than a football field! The south side is open over approximately one-half of its wall surface area, so this is called a "cold barn" in structural terminology. Cows are held from going out open areas by steel cables stretched taut with turn-buckles and passing through chain links welded to the steel trusses. Exterior plywood (1/2 inch) forms the sidewalls . . . painted the traditional barn red. Shenango steel trusses form the main members of both rafter and sidewalls, providing a clear-span building with no posts to work around.

Steel Roof

The roof is steel, coated on both sides with material that looks like enamel . . . sheets are 26 feet long, so there are no end laps. There is a ridge cap along the peak of the roof, open to allow air to exhaust. Doors were built into the barn wall just below the eaves on the north side to provide summer ventilation, but opening them has proved to be no help in keeping the barn cool, so they remain closed.

During the summer, the herd has 12 to 15 acres of rotated pasture to feed on, but they receive barn-fed roughage the year around. "After 10 a.m. in the summer, only three or four cows ever stay outside the barn," Tom says. Silage comes from four silos . . . measuring 24 x 57, 20 x 55, 12 x 50, and 14 x 40. Hay-crop silage is put up early for summer feed, then everything is filled with corn silage in the fall.

Silo unloader switches are connected to an ampere meter to guide the vertical adjustment of the unloader in the silo. When the unloader isn't "biting" very hard, the amp load decreases; when it is chewing too hard, the amp load

soars. The operator can look at the ampere meter and judge how things are going in the silo . . . trying to keep the needle between 40 and 50 amps. Henry is a college graduate in engineering, so he designed the electrical layout.

Hay is fed free-choice in a hay rack along one side of the barn; 60 tons can be stored along the north wall of the new barn and the rest is tucked away in the old barn, where a cold air mow dryer improves quality and haying speed.

The barn . . . and the herd . . . is divided into two 50-stall units, separated by gates halfway between the two ends. The 100 cows funnel from one end at a time into a holding area and then into the double-four herringbone milking parlor. It takes one man three hours and fifteen minutes to milk a hundred cows. The parlor was designed with 150 cows in mind. The ends of the barn were built so they can easily be moved out and 25 cows added to each end.

Stalls are seven feet and six inches long, four feet wide, curbs at the rear eight inches high and four wide. Bedding is put over the gravel stall beds every two or three weeks . . . about 160 bales of straw per month for 100 cows during the winter season. A flail chopper is parked at the end of each row of stalls, "wound up" with a tractor, and the bales pushed under it. Chopped straw blows almost the length of the stall row; the last two or three stalls have to be bedded with a fork.

Twice A Day

Droppings are pulled out of the stalls twice a day . . . just before the entire paved area is scraped with a tractor-mounted blade into a conventional-sized gutter equipped with a mechanical gutter cleaner. A self-unloading wagon is used to deliver silage to the three-foot-wide bunks. "This gives me greater use of the investment we have in the machine," says Tom.

Here's a farm that shows the results of a lot of engineering know-how . . . and plenty of thinking about how best to build, repair, or replace. In an era of machines and new ways of housing animals, it's something that every farmer needs to work at.

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The Question Box

... Send us your questions — we'll get the answers

Which is better, cutting oats for hay or pasturing them?

So far as the seeding is concerned, the results are about the same. For the best seeding, either is preferable to combining for grain. It's largely a question of which procedure fits better into your farm operation.

A farmer vacated an old farmhouse, to use for rental purposes, and built a new house on the same farm. The area is entirely agricultural, and not near any residential or business areas. Yet, the assessor assessed this new farm house at the same rate as though it were on a separate lot, and available to sell as such. I feel the assessment should have been in keeping with the general farm picture, since it is a part of the farm. I might add that the land and buildings are assessed separately.

The Real Property Tax Law of New York generally requires that town assessors assess real properties at their full value or at a uni-

form percentage of full value. "Full value" is generally considered to be market value or an approximation of what a property would sell for in an arm's length transaction between a willing buyer and a willing seller.

The State equalization rate applying to your Town's assessment roll for 1963 is 24, that is, the State agency considers that properties in the Town were assessed on the average at 24 per-

cent of their full value. Unless assessed values entered on the Town roll have been revised substantially since 1963, or unless real estate full values have changed greatly since 1963, the 24 percent is probably still a reasonable approximation of the average percentage at which the town assessors assess property.

If you believe that the property about which you write is assessed at substantially more than 24 percent of its full value, you should inform the town assessors, and explain the reasons why you believe this to be true.

If you are not then satisfied, you may enter a written complaint on grievance day. The assessors can inform you of the time of such

a meeting and the manner of such a complaint; in addition a published notice of the grievance day hearing is required. If you are not satisfied as a result of the grievance day proceedings, you may take your complaint into court.

A separate value for land and buildings is required to be entered on the town assessment roll. Some assessors, however, apparently judge the value as a whole of a farm property, and then separate this value more or less arbitrarily into one figure for land and another for buildings in order to meet the requirements. So far as a taxpayer is concerned, what really counts is the valuation placed on the whole property. — E. A. Lutz, Cornell University

Dates to Remember

JUNE IS DAIRY MONTH

June 5 - Steuben Pomona Dairy Festival, Bath, N.Y.

June 5-23 - Training Course in Conservation, Cornell University Biological Field Station, Shackleton Point, near Bridgeport, N.Y.

June 9 - Annual meeting, Eastern Milk Producers Cooperative Association, Hotel Syracuse, Syracuse, N.Y.

June 13 - Annual Fly-In, Drive-In Breakfast sponsored by the New York Flying Farmers. Municipal Airport, Ithaca, N.Y.

June 16-17 - Pennsylvania Poultry Federation Annual Conference, Pennsylvania State University, State College.

June 17-19 - National Chicken Cooking Contest and 18th Annual Delmarva Chicken Festival, Salisbury, Maryland.

June 20-24 - Neppco Egg Quality School, Gorham State Teachers College, Gorham, Me.

June 23-25 - 2nd National Grassland Field Day Conference at Middle Tennessee Agricultural Experiment Station, Columbia, Tennessee.

June 23-27 - Finger Lakes Sugar Beet Festival, Genoa, New York.

June 24-26 - Neppco Egg Marketing School, Gorham State Teachers College, Gorham, Me.

June 24-27 - National Apple Institute's annual meeting, Sun Valley, Idaho.

June 26 - Connecticut Valley Hereford Field Day, Twin Elm Farm, Mendon, Mass.

June 28-July 1 - Summer Conference, National Dairy Council, Edgewater Beach Hotel, Chicago, Illinois.

June 29-July 2 - Association of Teachers of Agriculture of New York Annual Meeting and Professional Improvement Conference, Association Island, Henderson Harbor, New York.

American Agriculturist, June, 1965



125 YEAR OLD KENTFIELD'S FARM GETS BIG BOOST FROM WIRTHMORE® — 200 COW HERD AVERAGE 11704 MILK 461 FAT 3.9 TEST

One of the best operations in New England, Kentfield's Farm & Dairy of Hadley, Massachusetts was started in 1840 and is in its fourth generation of family management.

Mr. and Mrs. Fred Kentfield went into the retail milk business in 1932 with 32 milkers. Today they are in partnership with son James, their herd consists of 200 milkers and 175 heifers, and they are retailing 6400 lbs. of milk daily.

The Kentfields are enthusiastic boosters of Wirthmore dairy feeds and have used them for many years. James Kentfield, who has managed the farm since 1944 feels that Wirthmore Twin Mix and Milk Mizer have done an especially good job in growing his herd replacements.

In fact, the Kentfields like everything about Wirthmore — feeds, service and personnel. We think you will, too.

WIRTHMORE

Will we win

(Continued from page 8)

seem to be satisfactory. But, have you noticed how some of our sharp cold snaps have sliced their way pretty far South in late years? There have been some frozen water pipes and mighty cold chickens in Dixie. This is getting some insulation under Southern poultry house roofs, and even a little boarding up of sides. Believe it or not, I saw a few completely closed, environment-controlled houses in Florida, Georgia, and especially North Carolina in the last two years. With their longer hot periods a few poultrymen are experimenting with the use of fans to reduce the effect of heat on production.

Some Southern poultrymen are running into what I'm sure is worm and disease germ build-up in their dirt floors. This is also hurting production and raising costs. To offset some of these higher costs some poultrymen have crowded more birds into their houses. This has put more burden on their dirt floors and on ventilation!

Now, lest I leave the impression that Southern poultrymen are all in deep trouble and getting ready to "throw in the towel," let me hasten to say that this isn't so.

Hens in the South are averagely in larger flocks, with newer facilities and good management. Expansion fever may be cooling a little right now, but there will be lots and lots of eggs produced

there next year and the year after that. I do hope they work out a better relationship between the volume of their production and the size of their market. This will reduce the pressure for price cutting. I saw some hopeful signs this winter, and I've had reports since then that some poultrymen are giving up and the balance are proceeding with caution.

A final observation which comes to my mind is that the integrators (the feedmen, egg handlers, hatcheries and others who contract with growers for their facilities and labor to produce eggs) are not having any better time of it than individual producers.

In the broiler business, which is almost totally integrated, this form of production has had a

built-in feature of over-production. This is why broiler prices have been forced so low that you can generally buy this fine food below the price of soup meat. Losses in the production portion of a farm-feedmill-hatchery-dressing-plant combine have been very common. Profits in other portions of the total operation covered these up.

What about egg production? Remember, the integrator has to make up any losses producing eggs with profits in making feed or hatching chicks or marketing eggs, or the combination of the three. But here's what's happening in the South.

Large poultrymen buy a small feedmill if the feedman loads too much margin in his feed price; competition among hatcherymen has reduced their margins almost to the vanishing point; there hasn't been a good return on investment in egg handling for a long time. There is much less room to bury production losses in a vertically-integrated egg business than there has been in broilers in the past; this plus the fact that only the sharply-managed egg integrators can get production results as good as well-managed farmer-owned and managed operations. Furthermore, egg producers have many choices in where they sell their eggs, while broiler growers had only a very few dressing plants as outlets.

All this is keeping the encroaching of vertical integration progressing very slowly in egg production. This is good, because it tends to keep control in relatively weak financial hands — the hands of individual poultrymen. This makes for fast adjustments in production when egg prices get low.

The Midwest

I was in Minneapolis, Minnesota recently, speaking at the Northwestern Feed Manufacturers Association monthly meeting. I spent an extra day-and-a-half visiting with about ten of the larger feed manufacturers. They all told about the same story. Egg production has been declining in this second-largest Midwest egg-producing state for about ten years. They see no evidence of a reversal of this trend. They told me that 75 percent of their hens are still in flocks of less than 1,000 hens; these flocks are dropping out fast. While there is some expansion of family farms to a commercial size of 5,000 to 10,000, this is not fast enough to make up for the layers lost in the dropouts. Other crops and dairying have yielded better labor incomes than poultry.

Some of the feed companies whose management people I visited with do business in parts of Wisconsin, North and South Dakota, and northern Iowa. They say that the same trends are found in these areas.

In an informal meeting with six or eight of the feedmen, I asked what the total cost of producing a dozen eggs was on the better-managed commercial farms. They seemed pretty well agreed that the

(Continued on page 15)

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minimum was 26 cents a dozen. This was true where the flock owner grew all the corn his chickens used. He bought a concentrate and had his corn ground and mixed with it to make a complete mash. The costs of other poultrymen in this top group ranged between 27 and 29 cents a dozen. They volunteered the further information that total production costs would range between 30 and 32 cents on the bulk of the non-commercial farms if all expenses were properly charged in.

Not many of their best eggs from the large commercial farms are shipped to our northeastern markets. There is enough demand in midwestern cities to buy these at prices which net poultrymen more than they can get by shipping them East. The still large quantities of midwestern eggs that we do get are assembled by wholesalers, who pick up three to ten cases per farm. These wholesalers candle, pack and ship them East in carloads or truckloads. Most of them go to large buyers like chain stores, to be sold in their second or lower price carton; some go to breakers for their liquid and dried egg trade.

A Tough Nut

How to lick the price-cutting competition which is too typical of the way eggs are marketed is still a tough nut to crack. This much I think I see happening:

In all-important egg-producing areas which depend on our northeastern markets for their outlets, I find that costs of production are coming very close together. What one area may gain through lower building, feed or labor costs, our poultrymen can make up through high-density housing and more efficient feed conversion and labor use. What we may still lack in matching production costs in other areas is more than compensated for by lower transportation costs in getting eggs to market. If we will we can also put enough fresher quality into grocery stores to command some premium.

Low prices such as we are now seeing in our markets definitely focus attention on the need to produce for a known market, rather than simply increasing production and then have to cut prices to get rid of the increase.

"Horizontal" integration can be the best answer to the threat and bad effects of "vertical" integration.

Working Together

By horizontal integration I mean a working together of several independent people in the production-marketing chain, through agreements or even contracts. A good start along this road has already been made. I refer to poultrymen who enter into agreement with a marketman to produce only for him. In turn, the marketman agrees to pay a definite price for each grade, based on an official market quotation. Both remain independent; each assumes the normal profit or loss risks which go with his part of the business. I see no reason why hatcheries and feed-

men can't get into such an arrangement too. For example:

A hatcheryman may agree to supply chicks to an egg producer at a discount below his "list" price. The difference might represent his advertising, sales and collection costs.

Then a feedman could agree to reduce his price, the reduction again representing his normal sales, warehousing and credit costs (assuming he would get cash).

The marketman would agree to

pay a definite price for each grade in relation to an authentic market quotation.

And the poultryman would agree to keep a certain size flock, take proper care of his eggs, and deliver them all to the marketman.

The marketman should be able to do a much better marketing job because, if properly planned with a number of poultrymen, he could give major attention to finding and servicing the best markets. He should be able to tell pretty closely,

and well ahead, about how many eggs of each grade he will have to sell.

This kind of thinking is beginning to be talked about in poultry circles. Many of today's best practices were only in the early talking stage ten years ago.

If we can then get the selling part of the marketing into fewer hands to match the bargaining power of big buyers, I think we'll win this "war."

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American Agriculturist

THE FARM LABOR outlook for New Jersey is still uncertain, and may lead to a shift in the planting of a number of crops. Growers are faced with higher labor costs (up on the average 22 percent)... and even with this boost there is no assurance of sufficient workers to harvest crops such as asparagus and fruit.

Connecticut tobacco growers accustomed to employing British West Indians, with their supply cut off have gone to Puerto Rico, and the \$1.40 an hour wage established by Labor Secretary Harold Wirtz is draining off the New Jersey supply. Having lost



LABOR OUTLOOK CLOUDED

by Amos Kirby
New Jersey Editor

its Mexican (Bracero) workers, California is soliciting in Puerto Rico to fill its requirements.

The supply of migrants (mostly Negro) from the South has been restricted due to insurance requirements placed on crew leaders. Crew leaders are required to have liability insurance, or post a \$50,000 bond, which some of them are unable to do. Insurance costs range from \$350 to more than \$1,600, depending on size of vehicle involved.

TURN TO IRRIGATION

A Rutgers weatherman sees dry days ahead... even the possibility of water rationing in North Jersey before the summer is over.

A. Vaughn Havens, chairman of the Department of Meteorology at the College of Agriculture, points out that as of April 1 New Jersey was in a very severe situation, with North Jersey in need of

7.78 inches of rain; 7.27 inches short in South Jersey. This State is in a drought cycle that started in October, 1961... and there is no sign that it is near an end.

I asked John W. Raab, senior county agent in Sussex County, what dairymen in North Jersey were doing with irrigation to meet the water shortage. John replied: "As far as I can determine, irrigation is impractical in Sussex County on either pasture, hay or corn. It is my belief that the most practical approach for dairymen is to plan on some sudan grass for summer pasture, and some sorghum or sorghum hybrids that will do well under drought conditions for green feeding during the summer. I also think that it is well for growers to plan to fertilize both corn crop and pasture, as well as hay crops, to provide ample nutrients."

Monmouth County growers have been developing water supplies in recent years and at the present time have over 600 farm ponds, with close to 16,000 acres of the county farmland being irrigated. Most of the potato acreage in Central Jersey is now grown under irrigation.

In Cumberland County, according to senior county agent Wilbur Runk, irrigation is big business, and new wells and ponds are being developed. Cumberland County is fortunate in having low-lying areas where water supplies are available either through ponds or wells.

Growers, too, have been cooperative. They have borrowed or traded pumps, portable pipe, and in some instances have used neighbors' water supplies.

PETROLEUM MULCH

A number of New Jersey vegetable growers are experimenting with a petroleum mulch to control weeds. According to senior county agent Robert Gardner, Salem, tests are again being continued on a number of crops.

Tests conducted in 1964 reveal that on cucumbers yields were increased by 21 percent; snap beans, 32 percent; and tomatoes 5.6 percent. By using the band treatment (6 inches) the cost is approximately \$14 per acre. The Armour Chemical Company has placed three applicators in South Jersey for rental to growers who plan to use the mulch.

BETTER POTATOES

Down on the farm of George Cooms, Elmer, the Campbell Soup Company is conducting some basic research on white potatoes. The average housewife may know potatoes by names such as Katahdin, Chippewa, Russet, or what have you. But to the Campbell Soup Company, the potato chippers, and those who process frozen french fries, there are great differences in potatoes.

I visited the Campbell Research Center in Burlington County and discussed potatoes with Dr. Cunningham, who explained the exact

(Continued on page 24)

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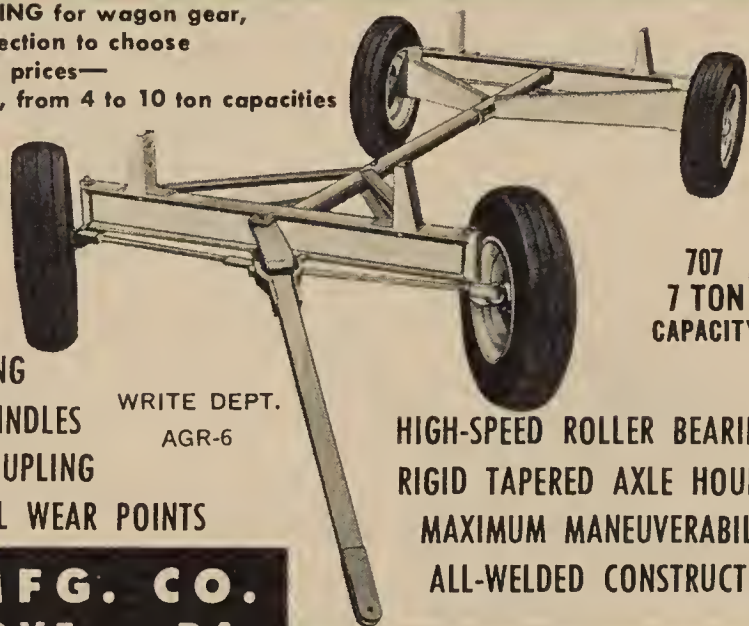
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News and Views from NEW YORK AND PENNSYLVANIA

Dispersal — The Colton Bros. Holstein herd at Dalton, New York, was dispersed recently. This herd had a 1963-'64 DHIC average of 20,247 pounds milk, 3.7 percent, 750 pounds fat on 33 cows — the first DHIC herd in the nation to exceed 20,000 pounds milk. The herd was first put on DHIC test in 1960, and had three consecutive years in the 600-pound fat range preceding the latest achievement.

It was strictly a homebred herd, originating from 4-H project animals purchased some 30 years ago by Howard and Ronald Colton. They started using NYABC service in the early 1940's, and the milking herd has been bred by NYABC for the past ten years.

Sales Tax — Pending formal organization of a Sales Tax Bureau, a Sales Tax Information Center has been established. Phone requests for information may be called direct through (Albany) GL 7-2780. Mailed inquiries should be directed to the Sales Tax Information Center, P. O. Box 5028, Albany, New York, 12205.

Switched — Thirteen dairy cooperatives in northern New York, involving about 1,000 dairymen and working together as Allied Federated Cooperatives, recently switched their allegiance to Eastern Milk Producers. Formerly affiliated with Metropolitan, they decided not to join the merger of Metropolitan and Mutual, now called Northeast Dairy Cooperative Federation, Inc. Allan Child of Malone, New York, is president of Allied.

Caledonia Show — To be held at the Empire Stockyards, Caledonia, on Friday, September 10, the 16th annual New York Meat Animal Show and Sale will include a complimentary banquet for all 4-H and FFA exhibitors.

Entries must be made by September 3 on entry blanks available from county Extension offices, the Department of Animal Husbandry, Morrison Hall, Ithaca, New York, and John Moran of Caledonia. This Show is open to residents of the State, and includes two divisions: one for youth and the other for adults.

The 4-H division carries a classification for pens of three hogs and lambs and individual steers, lambs and hogs. The open division for adults has a full classification for pens and singles of all species.

A NEW MILK PLANT

REPRESENTATIVES OF some 16,000 dairy farmers from six northeastern states who make up the Dairymen's League family officially dedicated a new, three million dollar milk plant on May 5.

Located on a ten-acre tract in the Goshen Industrial Park, New

York, the plant is considered the most modern, highly-automated milk processing operation in the East. It has a capacity of 250,000 quarts of milk in a single 8-hour shift.

The League operates distribution businesses in some 19 cities, has 40 country plants, 3 large manufacturing plants, and an ice cream business. More than four billion pounds of milk were marketed in 1964.

The Goshen plant is equipped

with the latest devices for machine loading, lifting and moving packaged products, as well as the most efficient and sanitary equipment for storing, pasteurizing, homogenizing, filling and refrigerating milk.

Never Handled

When milk arrives at the plant it is pumped from the tank trucks into huge, upright silo tanks, then into the homogenizing, pasteurizing, and filling machines. From the fillers it moves to a mechanical casing machine which picks up the required number of cartons and deposits them in a case. The cases move along the conveyor to a device that automatically stacks

them, and the stacks are set on wooden pallets, which are picked up by fork-lift trucks and moved right into the trucks.

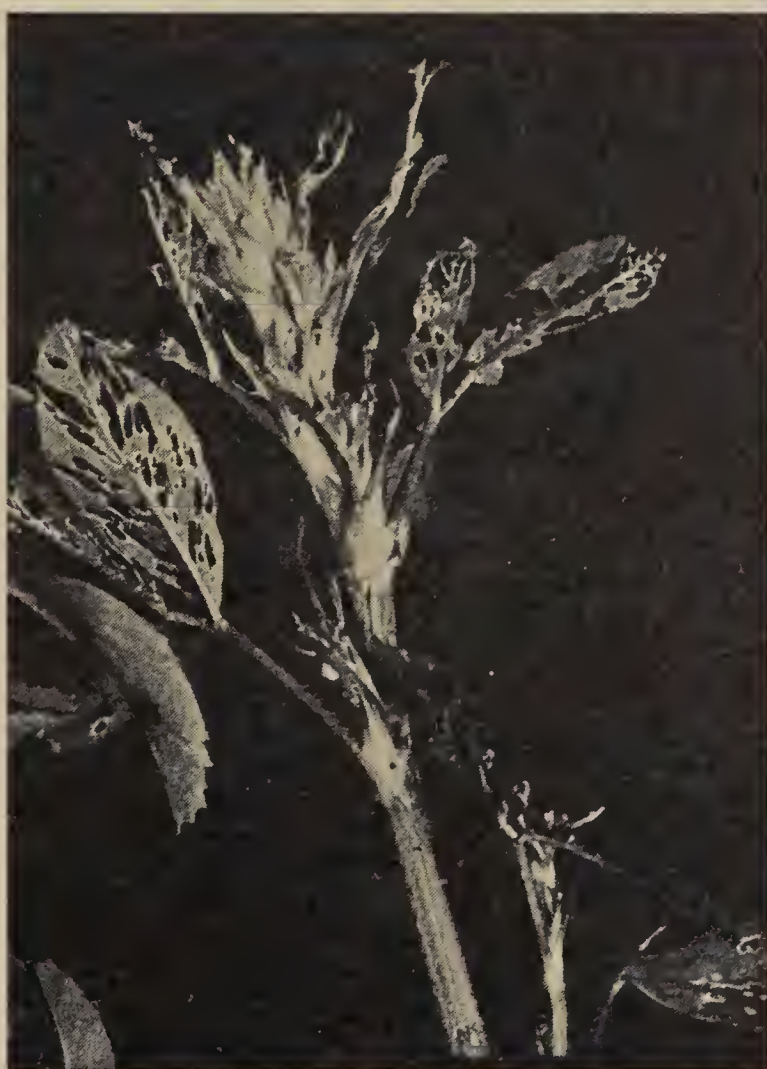
The machine that fills half-pint cartons can turn them out at a rate of 14,000 an hour; the quart filler operates at 120 quarts a minute.

After a run of milk has been completed, the whole system is cleaned in place by pumping water and cleaning solution through the pipes and equipment.

Products packaged at the plant include homogenized vitamin D milk, multivitamin milk, pasteurized milk, cream, buttermilk, egg-nog (in season), chocolate milk, and orange drink.



Tiny grubs—big appetites. Green larvae with white stripes grow to a length of $\frac{3}{8}$ "; adult weevil varies from brown to gray with a black stripe, are $\frac{3}{16}$ " long. Adults shred leaf edges on later cuttings, then over-winter and lay eggs early in the spring.



Damage from the weevil. Note the riddled tips and skeletonized alfalfa leaves. The pest often ruins the first cutting. On all chemicals, follow labeling instructions and warnings carefully.

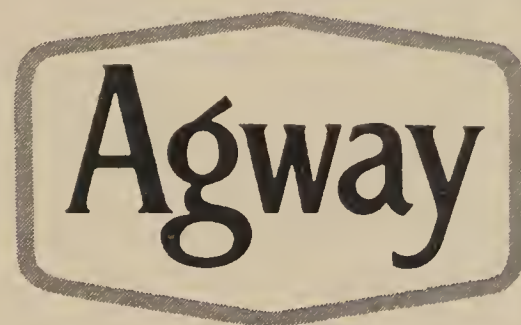
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HUMAN NATURE

In The **Berry** Patch

by Hugh Cosline

"All the world is queer but thee and me," said the Quaker to his wife—"and sometimes I think even thee is just a little queer!" Art Linkletter puts it another way: "People are Funny."

I fully admit that I have as many "quirks" as the next fellow, but I do like to study human nature, and I find a "pick-'em-yourself-for-25-cents-a-quart" berry patch a superb place to follow this bent.

There are two things you can do—listen and watch. There is something about berry-picking that makes neighbors of us all, and in some groups there is more talking than picking.

But it's watching that seems the more productive in my case; after cataloging the pickers into groups, I have given them names.

Several Categories

First, there are the "bargain hunters," I divide them into the builders and the prospectors.

The builders fill a quart basket, then proceed to build a wall of berries around the box, putting in each course a bit as one would a stone wall. The result is a quart-and-a-half of berries, which the builder hopes will "get by" because the owner may not wish to lose a customer. One berry grower has almost licked that problem by a sign which reads: "Quarts, 25 cents; heaped quarts, 30 cents."

Farther—much farther down the line of undesirable customers is the absolute cheat. The grower I have in mind also grows "pick-'em-yourself" peas. On one occasion he found a pile of pods in the field, and it didn't take much deduction to conclude that the picker had shelled peas in the bottom of the basket, topped by a thin layer of pods.

Another culprit got in his car and took off, with the farmer one jump behind. When he was caught he paid without protest, apparently with the idea that thievery is all right if you can get away with it!

The prospector operates a bit differently. He or she takes a basket in one hand and strolls up and down the row, picking only the extra-large berries. Another sign reading: "Large berries only, 35 cents" largely took care of this.

But it can't take care of the "in betweeners," the person who picks the big ones and the middle-sized ones, but leaves all the small ones.

However, to a degree the prospectors are balanced by the

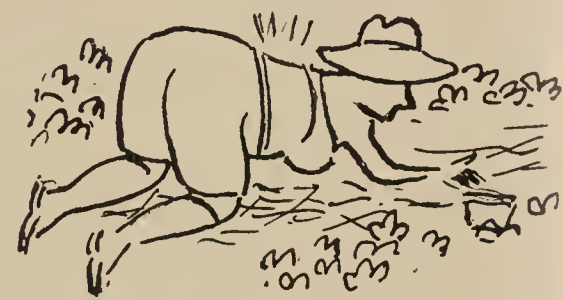
"gleaners." There are some people (and I have a small streak that way) who just can't endure waste. A gleaner may not get many berries, and what he or she does get may be small and "burly." But saving something that might otherwise be wasted gives some people great satisfaction.

One group that especially annoys me are the "trompers." Ignoring the berries at the edges of the rows, they step on them or kneel on them, turning luscious berries prematurely into jam that never reaches the table.

While it doesn't necessarily reflect human nature, picking methods differ greatly. Now, I am a "kneeler." Stooping aggravates an aching back, and squatting soon teases arthritic joints and muscles into emphatic protests. One trouble with kneeling is that it is practically impossible to avoid kneeling on the jam left by the trompers! However, that's the way I do it, with a tray of baskets on the ground, so both hands are free.

What They Wear

Berry-picking clothes are interesting, too. Some of the feminine gender wear broad-brimmed hats to keep off the sun, but many



more expose not only the head but vast expanses of skin in various stages of tan or sunburn.

To some of us old-timers, pants do not tend to improve most feminine figures. Granting that skirts, especially tight skirts, are unsuitable for berry patch wear, I still claim that shorts, pants, or trousers tend to exaggerate rather than conceal the shortcomings of a figure, especially those who adhere to the "stoop" method of berry-picking.

But, adding all the plusses and minuses, I favor the "pick-'em-yourself" method. In past years I have raised some exceptionally-fine strawberries, but each year it seems to be more difficult to produce clean, healthy berries. Then, too, ambition tends to lag as the years pass, so I am happy to pass up the hard labor and just enjoy the picking.

American Agriculturist, June, 1965

HAVE YOU A NUMBER?

The answer to that question from many people these days would probably be a gruff "Sure do. We're turning into nothing but numbers!"

But if you live outside a city a number for your house could mean the difference between life and death! If a doctor is needed quickly, you don't want to have him cruising around needlessly searching for your house which is described as "east of the village," or "the one with the picket fence."

The same is true when a veterinarian is needed. And firemen, servicemen, county agents, mail carriers, electric and telephone companies, and many more would add their gratitude for a numbering system in rural areas.

The need is becoming more urgent with the influx of people to the rural areas. To simplify the task of locating these rural homes, many states have adopted a standardized system of rural house numbers.

To help along the good work, Niagara Mohawk Power Corporation, headquartered at Syracuse, New York, is making available a numbering plan for their franchise area, and are willing to furnish maps of each town and to place on these maps the numbers at all road intersections.

The System

The system is planned to provide a pair of numbers, odd numbers on the left, even on the right, approximately every 35 to 40 feet on all roads through the area. This would not displace numbers already in existence in cities and villages. Villages could convert to the county-wide numbering system if they wished.

One reason for the 35-foot measurement is because many villages have lots measuring 35 feet. However, many towns have zoning laws that require a minimum lot size of 75 by 100 feet. Thus the numbering system provides more numbers than may be needed for most roads... but this is done in order to have enough numbers for thickly-settled sections.

The first step necessary is for the town board to pass a suitable resolution adopting the county-wide property-numbering system. Usually it will have been endorsed

by a resolution of the board of supervisors... but this is not necessary.

Then a numbering committee is appointed by the town board. Such a committee might include volunteer fire groups, town assessors, granges, and other civic groups. They would have the responsibility for getting the necessary field work completed.

Before Niagara Mohawk can release a satisfactory map, it is necessary for the towns to furnish a map with correct road names. In many counties there are no of-

ficial names for state roads; and in some counties the county roads are known only by number... although they usually have local, unofficial names, and sometimes more than one such name.

The suggestion is that each county start numbering from the most southern line of the county and number north; and from the western county line and number east.

That part completed, the next job is to get the numbers on the houses... and to have them uniform as to size and type. Many town boards have turned over this project of selling and delivering numbers to groups such as volunteer firemen, Boy Scouts, FFA

chapters, 4-H groups, or civic groups. Rural house numbering is a civic undertaking in which everyone has a part.

If you live in New York State and don't have a house number, contact your town clerk's office regarding who to contact.

HOGS DO SWEAT

The belief that hogs do not perspire has been exploded. F. E. Beckett, professor of agricultural engineering at Louisiana Polytechnic Institute, reports that his research indicates that hogs lose an appreciable amount of moisture through the skin.

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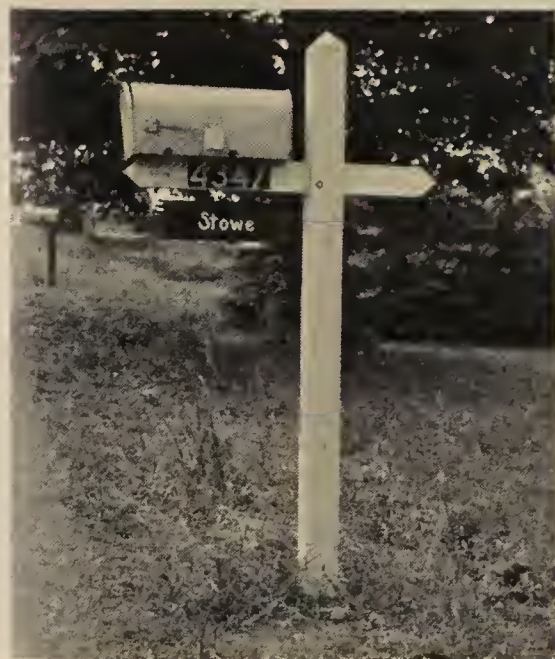
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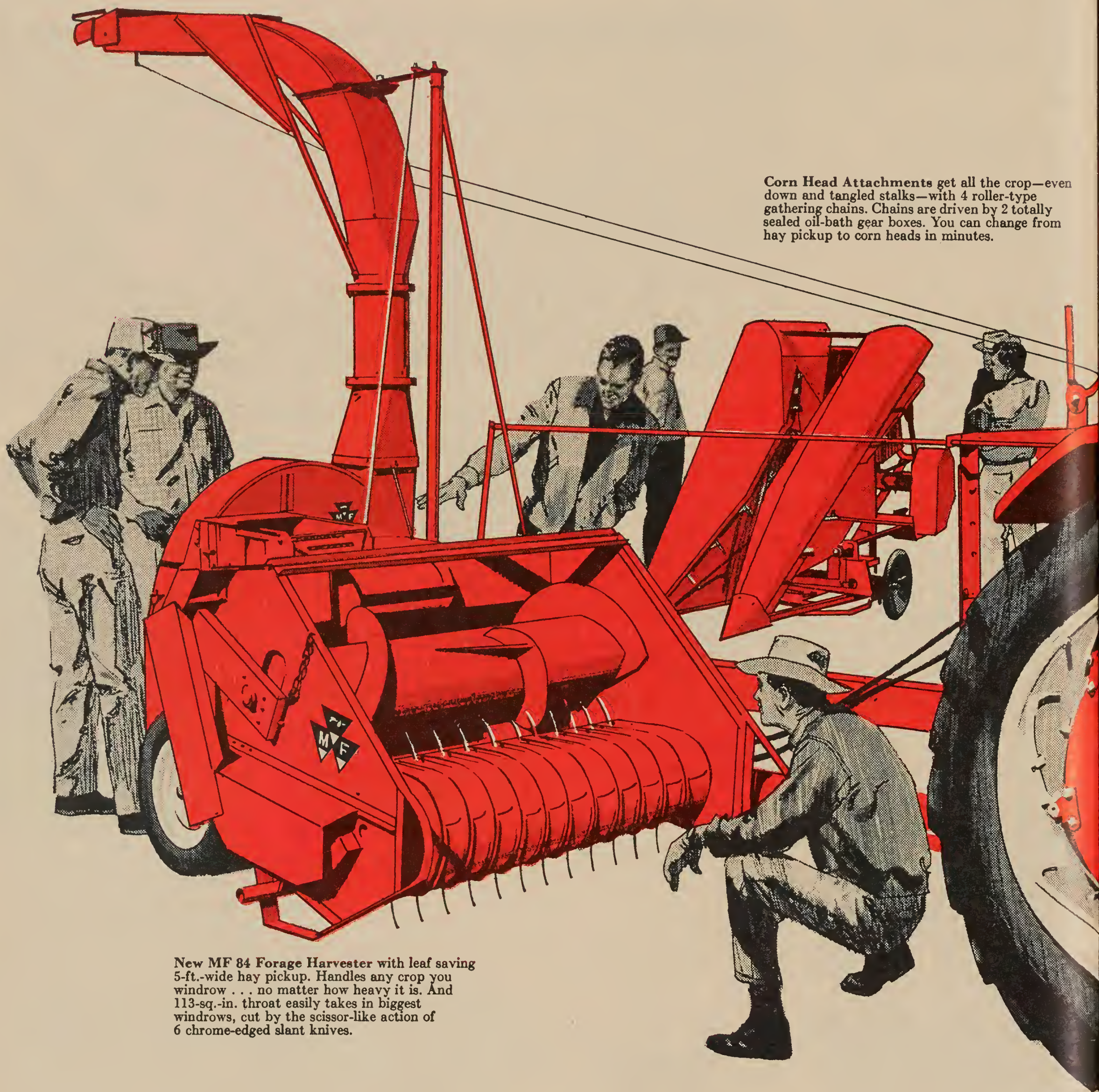


Here's the way to help people find where you live!

American Agriculturist, June, 1965

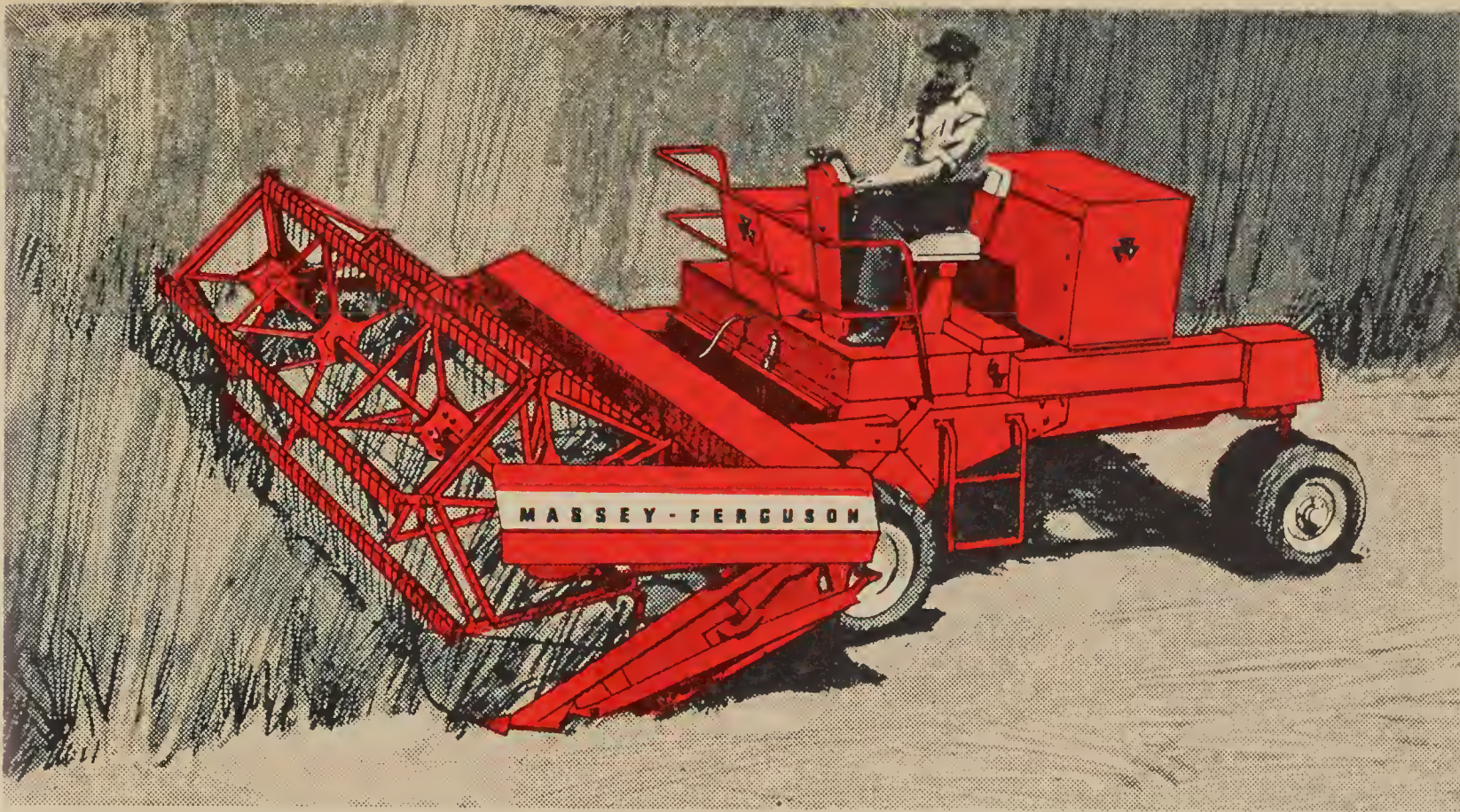
NEW! THE MF SYSTEM OF MECHANIZED FEEDING

Whether it's silage, haylage or green chop, the MF Forage Feeding System saves man-hours and money all the way from field to feed bunk. Save, too, by mixing your own grain feeds with the new MF 90 Portable Mixer-Mill!

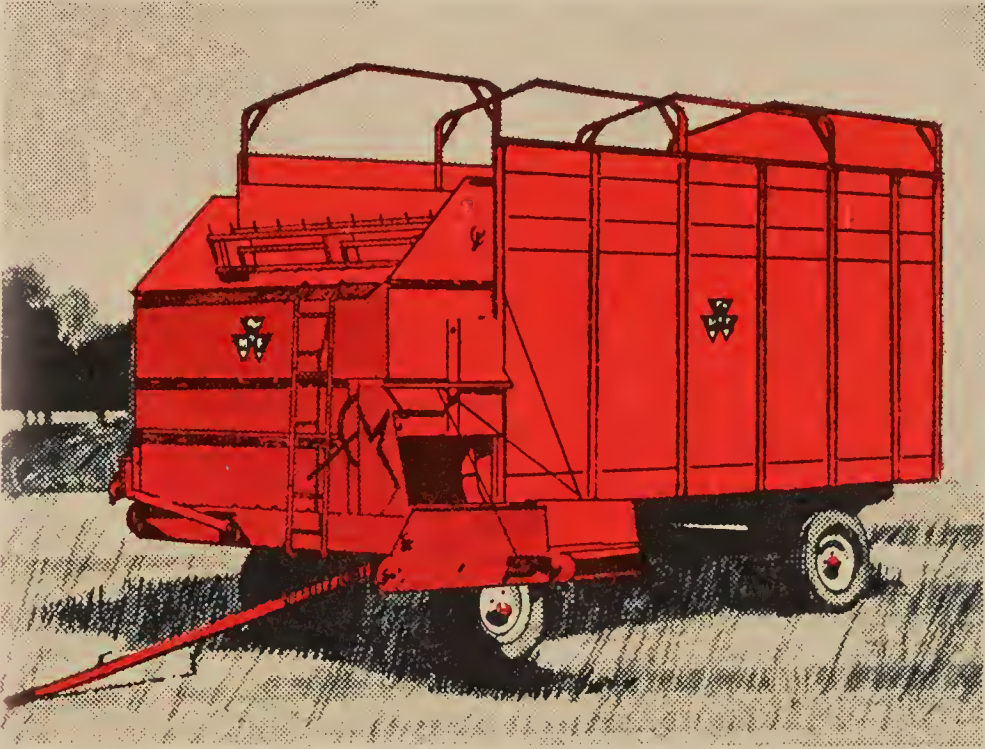


Corn Head Attachments get all the crop—even down and tangled stalks—with 4 roller-type gathering chains. Chains are driven by 2 totally sealed oil-bath gear boxes. You can change from hay pickup to corn heads in minutes.

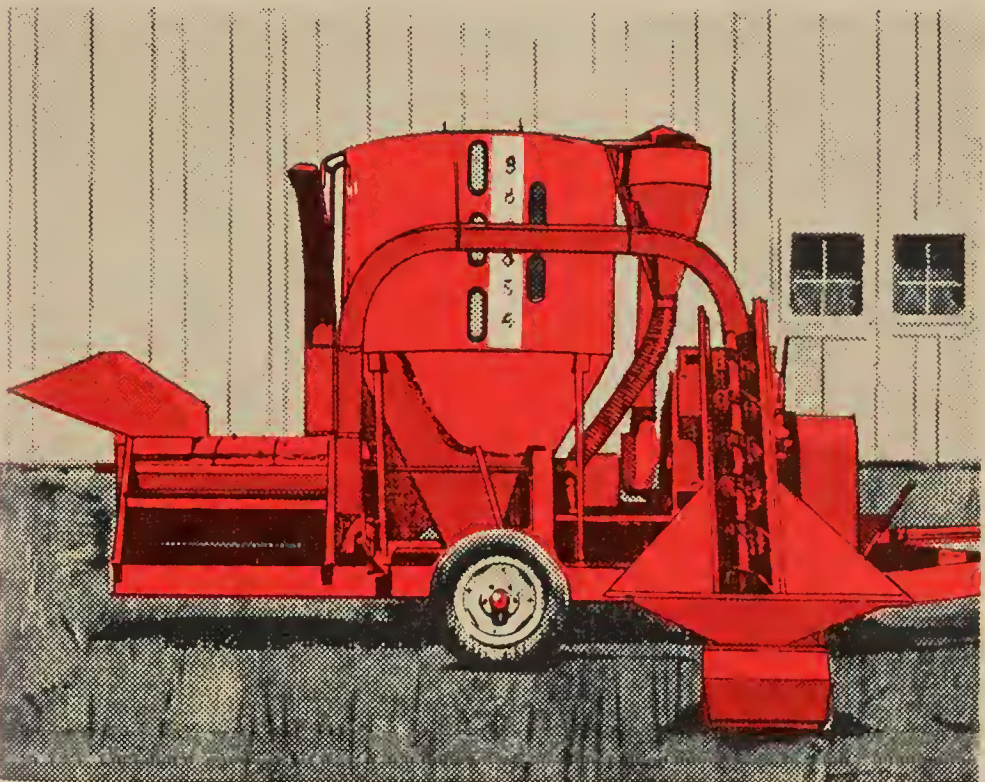
New MF 84 Forage Harvester with leaf saving 5-ft.-wide hay pickup. Handles any crop you windrow . . . no matter how heavy it is. And 113-sq.-in. throat easily takes in biggest windrows, cut by the scissor-like action of 6 chrome-edged slant knives.



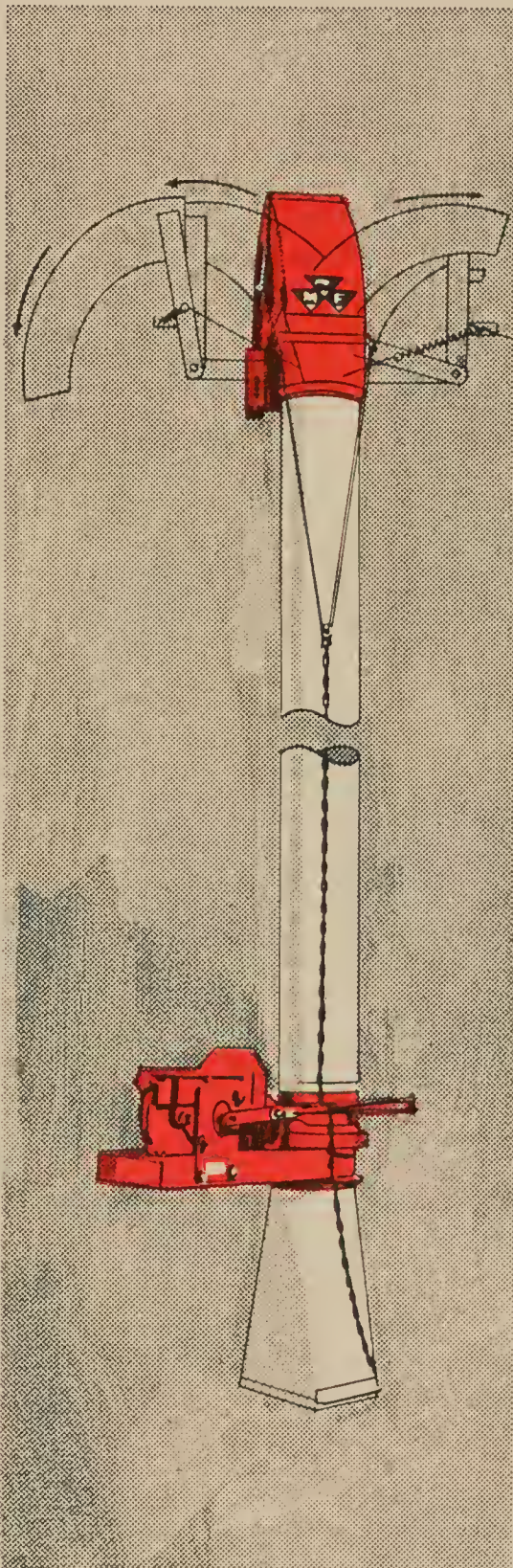
The Big MF 44 SP Windrower with conditioner, mows, conditions and windrows about twice as fast as you can do any one of these jobs alone. What's more, the big 16-ft. swath gets you through 75 acres per day. And it's made easy. One hand controls all forward, reverse and turning movements of the windrower . . . thanks to MF's exclusive single column steering control. The other hand is free to make adjustments of reel and table height.



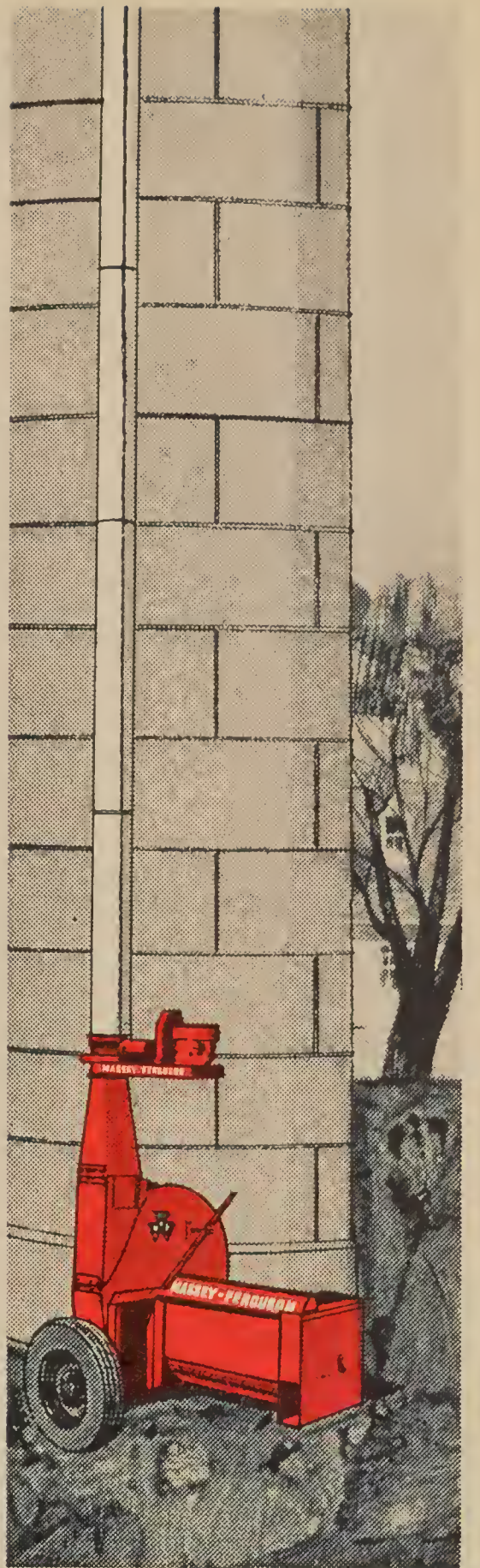
The MF 24 Self-Unloading Forage Box. The big box for big volume farming. It's 18 feet long. Holds 465 cu. ft. of forage with two beaters. Or 700 cu. ft. with 3 beaters. Also MF 23, 16-ft. size. MF 8 Wagon gear hauls 10-ton loads. Big 22-inch cross conveyor dumps feed into blower, elevator or bunk with choice of 4 unloading speeds.



MF 90 Portable Mixer-Mill mixes or grinds feeds anywhere you want, when you want it . . . up to two tons of precisely-blended feed in minutes. Saves countless trips to feed mill or elevator. Big 18-inch "concave" hammermill reduces power requirements, too.



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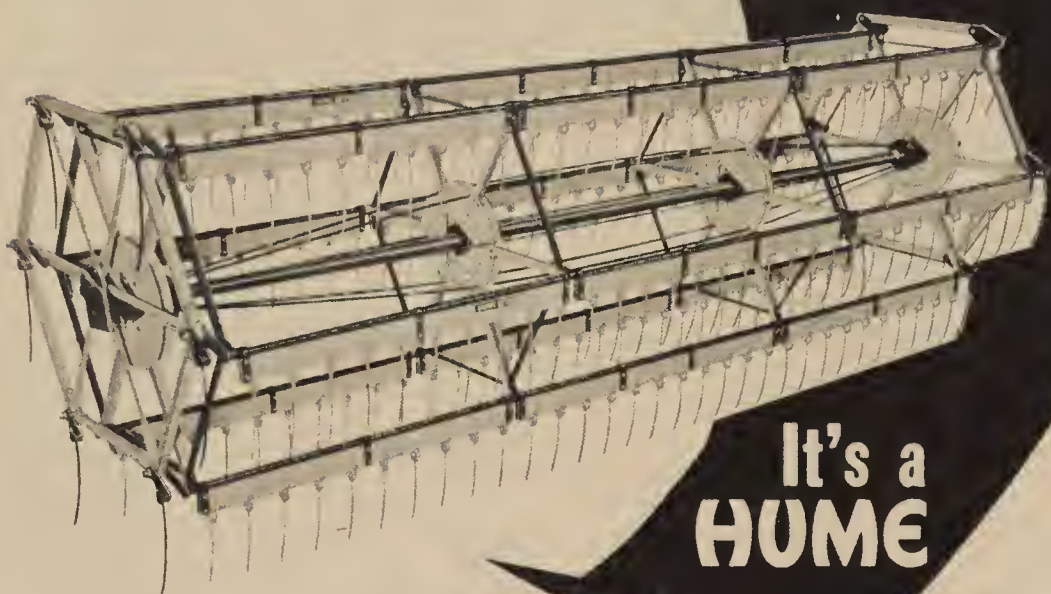
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VACATION WITH US!

STILL A LITTLE undecided what to do for vacation this summer? Why don't you come along with us on our Northwest Holiday, August 13 to 30? And if you fly to Chicago and back home from there, you'll save two days and can make the trip in the usual two-week vacation period.

From the moment we board the streamlined California Zephyr in Chicago's Union Station on August 14, until we arrive back there on August 29, every day will be packed with magnificent scenery and happy adventures, delicious meals and the finest of hotel accommodations.

Perhaps best of all, we'll not have a worry in the world! Our official tour escort from the Travel Service Bureau in Needham, Mass., will take care of all travel arrangements, including baggage transfer, scheduled sightseeing, and tips. We will have nothing to do but relax and thoroughly enjoy ourselves!

The first highlight of our tour will be the **BLACK HILLS** section of South Dakota and its many attractions — Mount Rushmore, Needles Highway, Deadwood, the reconstructed mining town of Rockerville, and the famous Passion Play at Spearfish.

We get our first glimpse of the breathtaking Rockies as we near **DENVER**. We'll tour its mountain parks, Buffalo Bill's grave, and quaint Central City.

An organ recital in the Mormon Tabernacle is scheduled for August 18 at **SALT LAKE CITY**, and there'll also be time for sightseeing and even a "dip" in Great Salt Lake if you wish.

The following morning we take one of America's most beautiful train rides through Feather River Canyon of the high Sierras, on our way to **SAN FRANCISCO**. Sightseeing here will include a drive to Twin Peaks for a panoramic view of the city and bay, Seal Rocks and the Cliff House, Lincoln Park, the Presidio, and the Japanese Tea Garden in Golden Gate Park.

Next, comes a day's drive in the "Redwood Empire," through grove after grove of these majestic trees, hundreds of feet tall. Winding our way around magnificent Mount Shasta, we continue northward to **CRATER LAKE** in Oregon. We'll have dinner on the shores of this beautiful spot and drive around the rim of Crater Lake the next morning.

As we ascend the slopes of **MOUNT RAINIER**, we understand why so many people claim it to be America's favorite mountain. Our luncheon stop has been selected especially for its superb views.

Our homeward trek begins the next day, and we see some of the finest scenery in the west as we cross through Idaho into western Montana. And a highlight of our entire vacation will be famous **YELLOWSTONE PARK**. Two days here will give us a chance to see the Hot Springs, Fountain Paint Pots, Old Faithful, Yellowstone Lake, Grand Canyon of the Yellowstone, and Tower Falls.

Leaving the Park, we travel over Red Lodge Highway amid the unforgettable scenery of the Bear Tooth Mountains. Our last night before heading back to Chicago is spent in the bustling western city of Billings, Montana.

Clip and mail the coupon today, and we'll send you a free copy of our attractively illustrated brochure, "Northwest Holiday." It will give you full details and the cost. Since the number we can accommodate on this tour is limited, we urge you to make your reservations soon.

Mr. Gordon Conklin, Editor
American Agriculturist
P. O. Box 367-T
Ithaca, New York

Please send me, without obligation on my part, your Northwest Holiday Tour itinerary. (Please print)

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American Agriculturist, June, 1965

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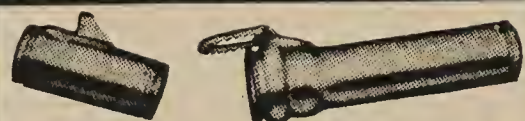
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SEVENTH GENERATION FARMER

Edwin Bickford, Jr., of McGraw, New York, is the seventh generation in a line of relatives who have owned the dairy farm he now operates. It's likely, though, that earlier generations would find it hard to believe some of the present production records per man and animal.

For instance, Ed takes care of 50 milkers and 30 head of young-stock with only part-time help. To do this, he is heavily equipped (Ed estimates an equipment inventory of \$50,000!) . . . bale thrower and mow conveyor for haying, self-unloading wagons, gutter cleaner, pipeline milker and bulk tank, plus power and field equipment.

DHIC Record

As for production per animal, the herd has a DHIC annual average of 16,000 pounds of milk per cow. Artificial insemination is used, and all herd replacements are raised from calves born on the farm. Careful herd records are kept; Ed says jokingly, "There's a better medical history available on every cow than on members of the family."

Pasture makes up a considerable portion of summer feed, but it's supplemented with hay and silage beginning about July 1. Hay and well-dented corn silage provide winter roughage; corn varieties in '64 were Pa. 290 and M-3. Ed has two silos . . . a 16 x 36 and a 14 x 28 . . . but plans on adding a 20 x 60 or 20 x 50 in '65. He's looking ahead to using more corn silage and less hay.

Looking Ahead

Looking ahead requires some records of the business; that's Mrs. Bickford's department. Besides doing the farm bookkeeping, she cares for three children ranging in age from 8 to just under a year . . . and don't forget Rex, the German shepherd who's also one of the family. The home, like the farm, is well equipped so that Mrs. Bickford can get a lot done in a short time.

The Bickfords speak highly of



Ed Bickford sets up equipment before milking

American Agriculturist, June, 1965

the help provided by Cortland County agent Ira Blixt through a farm management study group organized a few years ago.

Both are active in the community . . . including the Farm Bureau and Extension Service. Ed is president of the school board in McGraw, and was one of the original members of the Cortland Bulk Milk Producers, serving now as its secretary. Ed and his wife are graduates of the Cortland State Teachers School, and both have been teachers.

This is one of six New York State farms involved in a special

program sponsored by Agway to study ways to increase profits in dairying. Company specialists in credit, animal nutrition, farm management, agronomy, economics, and engineering analyzed the business from A to Z and then hammered out recommended changes upon which all could agree.

Generations come and go, but change seems to be one constant that applies to all of them. Another constant is obvious on this farm . . . the teamwork of united effort, and the satisfaction that it brings to each member of the family.

FOR CAMPERS

"Happier Vacations" is the title of a 72-page pocket guidebook published by The Coleman Company.

Vacation food is given particular emphasis, along with detailed information on how to stretch food dollars by cooking and eating in parks along the way.

Prepared exclusively for The Coleman Company by the well-known outdoors writer, George Wells, "Happier Vacations" provides entertaining reading as well as a wealth of information on how to cut family vacation costs. For a free copy, simply write to The Coleman Company, Dept. AA, Wichita, Kansas 67201.

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The Proof of the Puddin'



How they dressed Day Before Yesterday, Page 139.

Letters continue to pour in from enthusiastic readers of Ed Eastman's new book **JOURNEY TO DAY BEFORE YESTERDAY**. Here's what they say:

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"My wife and I read it out loud together."

"It's beautiful! I am proud to put it into my library of good books."

"I enjoyed the old-time pictures as much as I did the text."

"I was sorry when it ended. It made me feel that I had known you always."

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For a copy, postpaid, send check for \$5.95 to Department Book, American Agriculturist-Rural New Yorker, Savings Bank Building, Ithaca, New York.

GARDEN STATE

(Continued from page 16)

requirements for their specific need. While the Katahdin is excellent, research continues for a potato that is white, firm when served (diced and added to soups), and has a good taste. Tests are being conducted on the Coombs farm, a grower who contracts for his crop before it is planted and at established prices.

MECHANIZATION

Due to labor shortage, New Jersey asparagus growers are adopting mechanization. This year finds two types of harvesters in operation.

One of these machines we saw on the farm of William Hancock, Salem. It is made in Canada, propelled by a 6-horsepower engine, and carries three workers cutting one row each. The demand for these Canadian harvesters is such that the manufacturer cannot fill the demand for 1965 delivery. The machine retails for about \$725, and is similar to the machine made by Gene Urbaugh of Greenwich.

The Urbaugh harvester is modelled after one that was developed in 1956 by Joseph Hancock, provides for three men riding on the machine, with the machine operated by the cutter on the middle row. The machine is attached to an old model tractor, and may be built (including the tractor) for about \$500.

Last year the Agricultural College conducted tests on harvesting costs on the Urbaugh farm and other farms, and found that harvesting costs may be reduced by 40 percent over the usual method of the workers walking.

Allen Roork, Greenwich, has the first completely mechanized asparagus farm. Mr. Roork has two harvesters, one a three-row made by Mr. Urbaugh; the other a six-row machine mounted on a much larger tractor and requiring a seventh man to operate it.

The engineering staff at Rutgers are still working on the automatic harvester that selects and cuts the spears through an electric eye.

OTHER CROPS

New Jersey has white potato and snap bean harvesters that will help the labor shortage. Their limiting factor is for small growers who do not have the necessary acreage.

Kelly Brothers, Sharptown, have found that their saving on machine harvest enabled them to pay for their harvester in less than two years. Where in former years they had spent over \$10,000 for hand picking, three men on a harvester do the same amount of picking and produce a bean of equal quality for processing.

Their tractor and harvester cost was approximately \$16,000, and the only replacement due to wear in the second year were the brushes . . . at a cost of less than \$100.

American Agriculturist, June, 1965

FORAGE FEEDING VALUE

THE ALERT DAIRYMAN is asking many a question about forage programs for the Northeast, trying to figure out the best one for his farm. A helpful publication is "Feeding Value of Perennial Forages for Dairy Cows," recently released by the College of Agriculture at Cornell.

Here are some of its highlights: Silages prepared from perennial forages have evolved through several phases of development. Much of the early interest and enthusiasm was for direct-harvest, high-moisture silage because of the availability of direct-harvesting machinery and a one-trip field operation. However, compared to hay, research indicated a lower dry matter intake, lower milk production in some cases, less gain or a loss of body weight, large storage losses of dry matter, seepage, undesirable fermentation and objectionable odors.

Reducing the moisture content below 60 to 65 percent was not generally recommended because of the increased possibility of the forage heating and molding in the silo, since it is more difficult to exclude air from the porous silage mass. However, in recent years there has been considerable interest in "low-moisture" silage. This undoubtedly was stimulated by the fact that forage well below 60 to 65 percent moisture content could be stored easily in air-tight silos with low storage losses of dry matter.

Satisfactory Storage

The question naturally arose as to what extent forage could be wilted into the lower-moisture range and satisfactorily stored in conventional tower silos. Research results and farmer experiences are now available to show that with proper management practices, 50 to 65 percent-moisture silage can be satisfactorily stored in conventional tower silos, especially with the lower moisture material in the bottom half to two-thirds of the silo and the higher moisture silage in the upper part. Forage containing less than 50 percent moisture is not generally recommended for storage in a conventional silo. However, 35 to 45 percent moisture forage is recommended by Harvestore for their air-tight structures.

Ensiled perennial forage could be assigned terms on some division or segments of the entire range of moisture values more adequately to describe them:

1. High-moisture — 70 percent moisture and above.

2. Medium-moisture — 55 to 70 percent moisture.

3. Low-moisture — 35 to 55 percent moisture.

(a) Haylage — 35 to 45 percent moisture and stored in oxygen-free sealed storage system.

Although the inevitable variation exists, many studies indicate that the percentage of digestible dry matter or total digestible nu-

trient content of forages, cut at the same time and properly harvested, shows no consistent trend favoring any forage type, and is essentially the same regardless of whether it is in the form of hay or silage of various moisture levels. It is clear that the digestible dry matter is not greater in favor of silages than for hay. However, the dry matter intake is definitely less for the high-moisture silage and medium-moisture silage compared to low-moisture silage or hay.

Low-moisture silage and hay are essentially equal to each other in dry matter consumption. The

variation in milk production from silages compared to hay is obvious, but in all cases the average production from each classification of silage is equal to that of hay. The greatest variation occurs with high-moisture silages. The amount of variation among experiments makes it easy to see how difficult it is to draw final conclusions from any given experiment.

High-moisture silage is not recommended, although the average milk production per cow and per acre is equal to that of hay. The relative milk production is more variable and shows a high proportion of low values, especially for moisture levels above 76 percent. However, the general problem is perhaps more properly

sociological than nutritional. The high moisture level results in greater fermentation, usually of a type that produces objectionable odors... at least to the farmer, and especially to his wife. Extensive seepage and runoff usually occur, with an undesirable odor. There are also other disadvantages such as greater tons of material (water) to haul and deterioration of silos.

Moisture Range

In reviewing the USDA research on silage, Dr. Chester Gordon stated that there seemed to be no advantage in reducing the moisture content of silage below 50 percent. Below this moisture level there are increases in field losses,

(Continued on page 29)



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DRY WEATHER ROUGHAGE SUGGESTIONS: Sudangrass or sudan-sorghum crosses can be planted during June. Chop oats for silage just as head comes out of boot, or mow oats for hay. Topdress meadows after first cutting . . . nitrogen at 50 pounds per acre on grass; "O-goods" at 400 to 500 pounds per acre on legumes!

Cut hay crops early for hay or silage: higher feed value, less lodging, available feed regrowth can best use available soil moisture. More feed available from putting in silo any crop than pasturing it. Some hay can be harvested in the fall from August seedings with alfalfa after disking wheat stubble.

Look ahead to fall pasture on rye seeded in mid-August, and fertilize improved pastures for autumn roughage. Start looking for neighbors who may have standing corn to sell come fall.

Pray for rain!

MILK SURPLUS PLAN has been offered by Dairymen's League president Lester Martin. Federal legislation would be required to provide for government payments to dairymen who voluntarily retire from producing any milk. The League estimates the program might reduce national surplus by 4 billion pounds the first year, and 5 billion the second, at a cost of \$50 million the first year and \$95 million the second.

SLIGHTLY-HIGHER SUPPORT LEVELS for manufactured milk (\$3.04 on 3.5 milk) for the marketing year that began April 1 may boost the blend price to dairymen by an average of 2 to 3 cents. Based on past history, it will also stimulate production. There is considerable evidence that some people in government favor continuing food surpluses so there will be enough to give people in many foreign lands.

MILK SALES INCREASE per person in U.S. during 1964 as compared to 1963 very encouraging. Per capita sales of fluid non-fat and low-fat milk products increased more rapidly during 1964 than in any year on record. Cheese consumption also set some new records in 1964; during the last 15 years per capita consumption of cheese has increased by more than 30 percent. Ice cream and other frozen dairy desserts also set all-time highs last year in consumption per person.

CONTROL MORNING GLORY AND BINDWEED in grape vineyards by the use of a wax bar impregnated with the amine form of 2,4-D. These bars may legally be used in 1965, but one major New York processor is reported to be prohibiting their use by its growers. Most effective use of this new development is in late June or early July.

POOR CONCEPTION RATES reported by dairymen last winter may be due to insufficient vitamin A. Analyses by Beacon Research show that average of 18 samples of corn silage had only 12.8 percent of the vitamin A equivalent normally present. Samples came from areas suffering from drought, and indicate need for attention next winter if '65 proves to be another dry year.

HAYLAGE IN CONVENTIONAL SILOS can be preserved successfully if it is finely cut (1/4-inch), silo filled fast, and it is topped off with high-moisture forage and a plastic cap. Lowest total loss occurs when material is between 50 and 60 percent moisture. Interestingly enough, one of the best samples of haylage analyzed by the University of Massachusetts this year came from an excellently-constructed and managed trench silo!

FARM BILL DETAILS are subject to change and interpretation, but policy appears to be to lower market prices to permit easier export . . . but maintain prices to farmers by direct payments or a two-price system (one price for exports, a higher price for domestic users).

Dairy products are not included in the proposal, but two approaches are in hopper . . . one to set a base for each dairy for Class I milk, permitting a dairyman to cut production and reserve Class I price for Class I base; the other to permit butter price to drop to 20 cents per pound, with direct government payments making up difference to dairymen or processors.

U.S. FRUIT CROP in '65 looks good. Southern peaches a big crop compared to 20 percent of normal last year. Apples promise a good crop. Strawberries in many areas were hurt by dry weather last fall. All tree fruits in New York apparently escaped bud damage from severe winter cold.

FEED GRAIN PROGRAM has 11 percent more farmers signed up for 1965 than for 1964. They plan to grow 120 million acres of feed grains, the smallest in 60 years. Corn acreage planned is 66.9 million; last year, 67.4 million.

HIGH POPULATION DRILLED CORN can make good green feed. The shorter the time from planting till harvest, the more seed per acre is needed. Tests showed that 5.5 bushels of seed per acre produced 15 tons of green feed per acre in five to

(Continued on page 27)

six weeks. In six to seven weeks, 4.5 bushels of seed per acre made 20 tons; in seven to eight weeks 3 bushels of seed made 25 tons. Dry weight per acre increased as growing season was longer.

Round kernels of hybrid corn can be purchased cheaper than regular seed, gives just as good plants.

COST CONTROL on farms is important. However, "skimping" on following expenses may prove especially costly in long run: feed for dairy cows; grease and oil for machines; fertilizer and lime; weed control chemicals.

CA STORAGE CONTINUES TO GROW. National figures on apples in regular storage early in March showed 11.9 million bushels, down slightly from the same date in 1963 ... but the 10.2 million bushels in CA storage were up nearly 2 million.

Red Delicious out of regular storage sold in early April at western New York shipping points for \$2.85, about 25 cents less than a year ago. CA apples of this variety were going for \$4.35, up 10 cents from a year ago (all for U.S. No. 1, 2 1/4 inches and up, twelve 3-pound bags in master container).

TAX ON TIMBER SALES can be figured more easily by using a new Forest Service Handbook, available for 35 cents from Superintendent of Documents, Washington, D.C. 20402. Ask for AH 274.

CROSSBREDS give beef carcasses "a little more desirable" than non-crossbreds, says Kenneth Monfort, president of Monfort Packing Company at Greeley, Colorado, and feeder of 100,000 head of cattle a year. He's feeding many more crossbreds than in previous years.

U.S. WINTER WHEAT PRODUCTION predicted to be up 1 percent from last year; 7 percent above average.

CHLORDANE TOLERANCE left at .3 parts per million. Proposal to set zero tolerance rejected by F.D.A. after long study by science advisory committee.

HATCH OF EGG-TYPE CHICKS was up 1 percent in January '65 over 1964, down 12 percent in February, and down 19 percent in March. Decreases in hatch over entire country.

DHIA RECORDS PAY. Business management records on 507 New York State dairy farms for 1963 showed that DHIA members average \$1,325 more labor income than non-members. DHIA members also had more milk per cow, produced more milk per man, and spent slightly less of the milk check for feed than non-cooperators.

FFA CONVENTION

Top winners named at the recent Annual New York State FFA Convention included: David J. Mosher, Greenwich, State Star Farmer; Lawrence Crowe, Heuvelton, Farm Mechanics; Albert J. Bouw, Jr., Roscoe, Soil and Water Management; Alan Buhr, Gasport, Poultry; and Lyle R. Carlson, Gainesville, Crop Production.

David Mosher, the son of Mrs. John Mosher of Greenwich, was also recognized as the top dairy farmer among the 134 Empire farmers receiving that degree.

Officers elected to serve the New York Association of FFA for 1965-66 included: James Brink, Jr., Slate Hill, president; Patrick P. Comings, Afton, secretary; Donald Morey, Central Square, treasurer; Earl Kortright, Grahamsville, reporter; and Harold Williams, Holland Patent, sentinel. Vice Presidents include: Marshall Houck, Forestville; Carroll Wade, Jasper; Mark Crandall, New Berlin; David Sipher, Gouverneur; Donald Haverly, Schoharie; and Russell Maurer, Delhi.

The Song of the Lazy Farmer

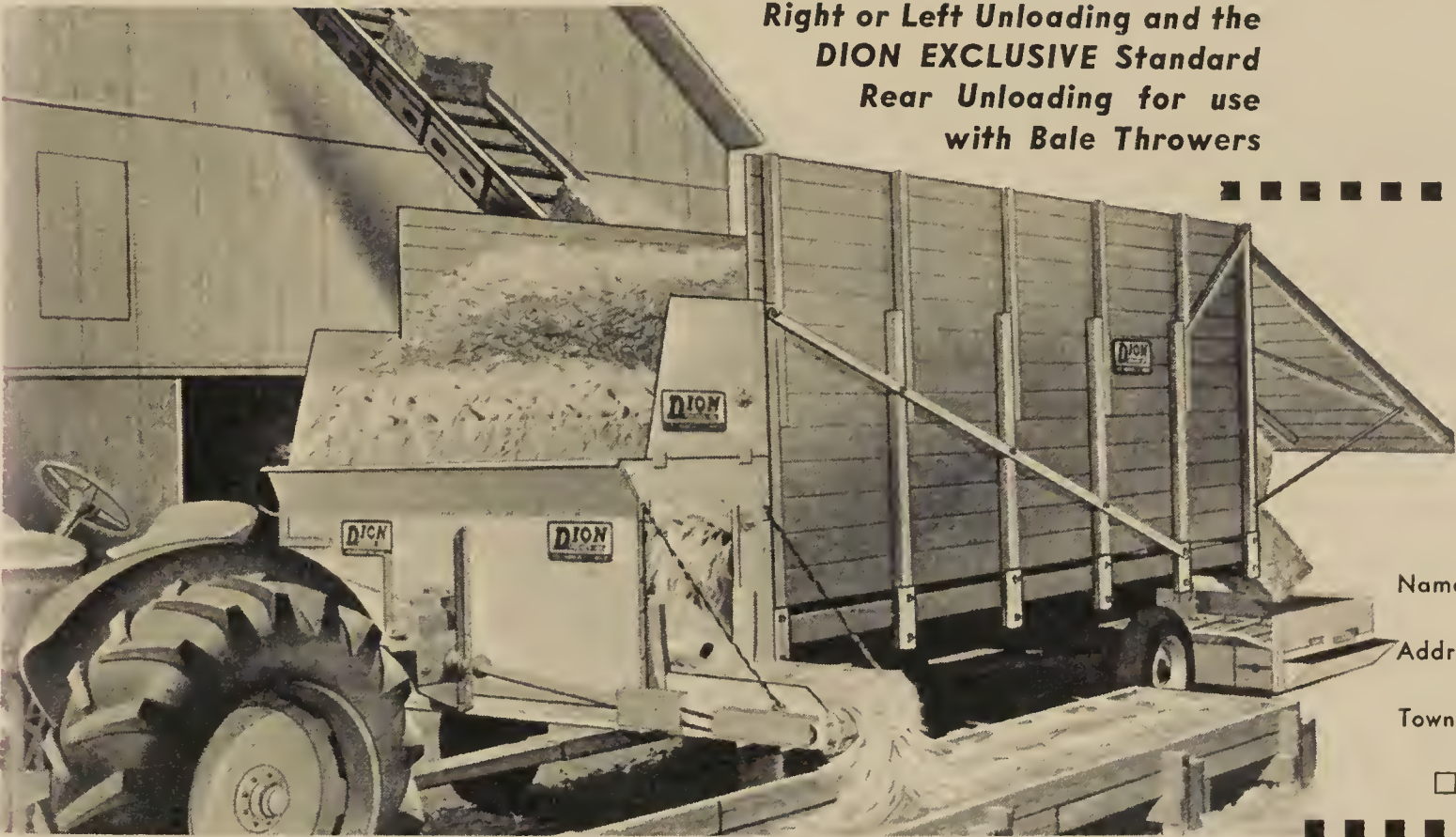
A day like this is bound to bring a tendency in me to sing, 'cause summer's here again and so I've got a warm, exciting glow o'er plans for things that can't be done except beneath a summer sun. I like to crinkle up my eyes and watch the shim'ring heat waves rise; I love to feel my shirt get wet as honest toil produces sweat; you cannot beat, I always say, the pungent smell of new-mown hay; I even like to cultivate, and small grain harvest time is great — it makes me feel like I could shout when oats and wheat come down the spout.

Of course, it's true that joys like these are pretty much just memories; a man as old and weak as me can't strain himself too much, by gee. But even though I've slowed down some, I still like having summer come; it don't take long for me to tire of winter days beside the fire; I'd fed up sitting in one place where I can't look out into space. It surely is a welcome change to get outside and



freely range as far and wide as I might wish, to sneak down to the crick and fish or park beneath my fav'rite tree while others do my work for me.

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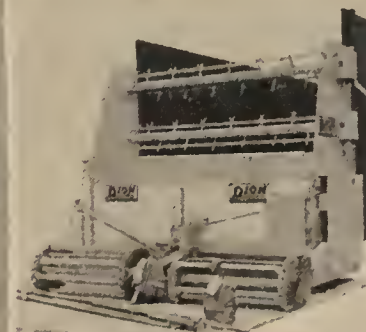
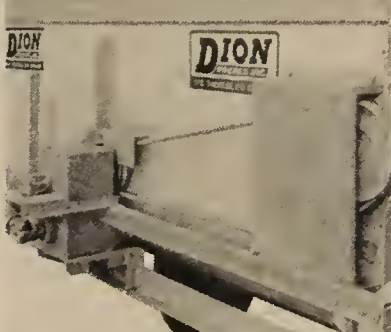
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HOW TO HIT THE TRAIL

TRAIL RIDES, both for competition and for pleasure, have become one of the most popular types of horseback riding in the Northeast over the past few years.

The competitive trail ride varies in length and time limit, but essentially is a test of horse and horsemanship. Riders present their horses for inspection by a veterinarian and a judge at the start of the trail ride. At a given time they leave and the exact time of each rider's leaving is recorded. Each rider must cover on horseback a marked trail within a certain time limit. During the ride, horse and rider are observed by the veterinarian and judge, and at the end the horses are again examined by the veterinarian.

Part of the rider's score depends on time; there is usually a penalty for too short a time as well as too long. The majority of the score depends on the condition of the horse during and after the ride.

Non-competitive trail rides are for pleasure, and also for training riders and horses for the competitive rides. Both types can run for hours, a whole day, overnight or even for several days.

Valuable Help

To my mind the most valuable thing about a competitive trail ride is that it teaches the rider to put his horse through miles and hours

of hard work without harm. A trail ride for pleasure can't be much fun for horse or rider if either one ends up sore, stiff, or with actual wounds.

The first point in preparation for a trail ride is to start with a proper horse. A horse that has poor feet or legs, has had serious saddle or girth sores, or is wind broken will never make a good trail horse. In general, stallions are not used, and horses of very high nervous temperament don't make good trail animals.

After you select a mount, select the proper equipment for both of you. The saddle blanket is the most often neglected piece of equipment... a good, clean saddle blanket or pad is a must. The saddle should fit exactly and the girth be capable of holding without chafing. When you saddle the horse and tighten the girth be sure the hair lies naturally and there are no folds of skin to cause girth or back sores. Bridles should be fitted exactly and parts that rub or chafe either changed or padded.

You should have proper boots... and your horse should have proper shoes... and both should fit. A blister on your leg won't count against you, as would a lame foot on your horse, but it can discourage you from wanting to ride again. It should go without saying that all tack should be kept

clean and oiled, not only for the sake of appearance, but so that it is not "hard" on the horse.

The next point to consider about a trail ride is whether you have time, and are willing to take the time, to train yourself and the horse. To do a good job on a trail ride, a horse should preferably be ridden several miles every day for at least a month before the ride. Two rides a week at a minimum of eight miles will have to do for the rider who can't ride a shorter distance every day.

As important as practice is to the horse, being in condition is even more vital. A horse receiving only pasture as feed may be fat, but he is "soft." Good hay and liberal grain are very important to the condition of the trail horse, but too much grain causing too fat a horse is worse than not enough. You should feed so that your horse looks "ready to work." If necessary, have his teeth checked, and have your veterinarian check him for evidence of worms.

Check Timing

Carry a watch when you ride and learn how long it takes you to go, say four miles, at various gaits and combinations of gaits. Then, when on a trail ride of a specified number of miles, you will know about how far and how fast you must go to keep within the allotted time.

When you take the saddle off after a long ride, check for "hot

spots" under the saddle and girth. These are caused by either an ill-fitting saddle and girth, or a poor job of riding or saddling. Have a riding instructor watch you and see if your "seat" is correct, and if your stirrups are the correct length.

Be careful about feeding and watering your horse during and after a trail ride. Cooling out slowly after a ride by walking is very important, and, if the judges allow it, blanket your horse if the weather is cool. Water should be allowed only in amounts of a few swallows every five or ten minutes until the horse gets over his extreme thirst; feed should not be given to a "hot" horse. Standing a horse in cold water will ease his "hot" feet, but would not be allowed after a competitive ride until all inspections have been made.

Wash Back

After riding during warm weather, wash your horse's back and girth area down with salt water and a sponge... a handful of common salt in an eight quart pail of air-temperature water is correct. Keep your horse clean and brush him before saddling.

If he "interferes" (hits his feet together), see if your horseshoer can change his shoeing. Have shoes reset about a week before a ride, so they will not drop during a ride but are not too "new."

When you present your horse for inspection before a ride, be

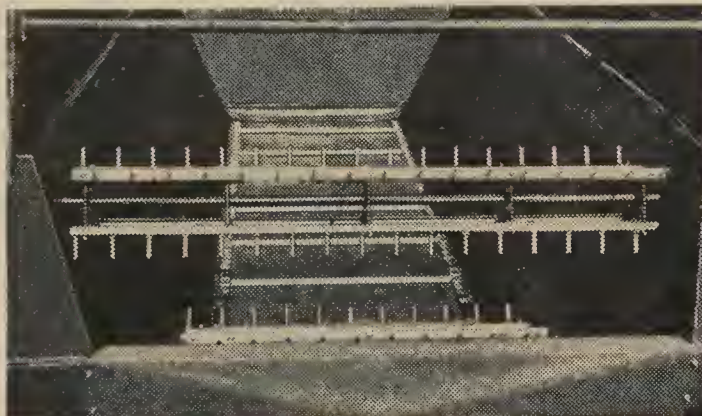
(Continued on page 29)

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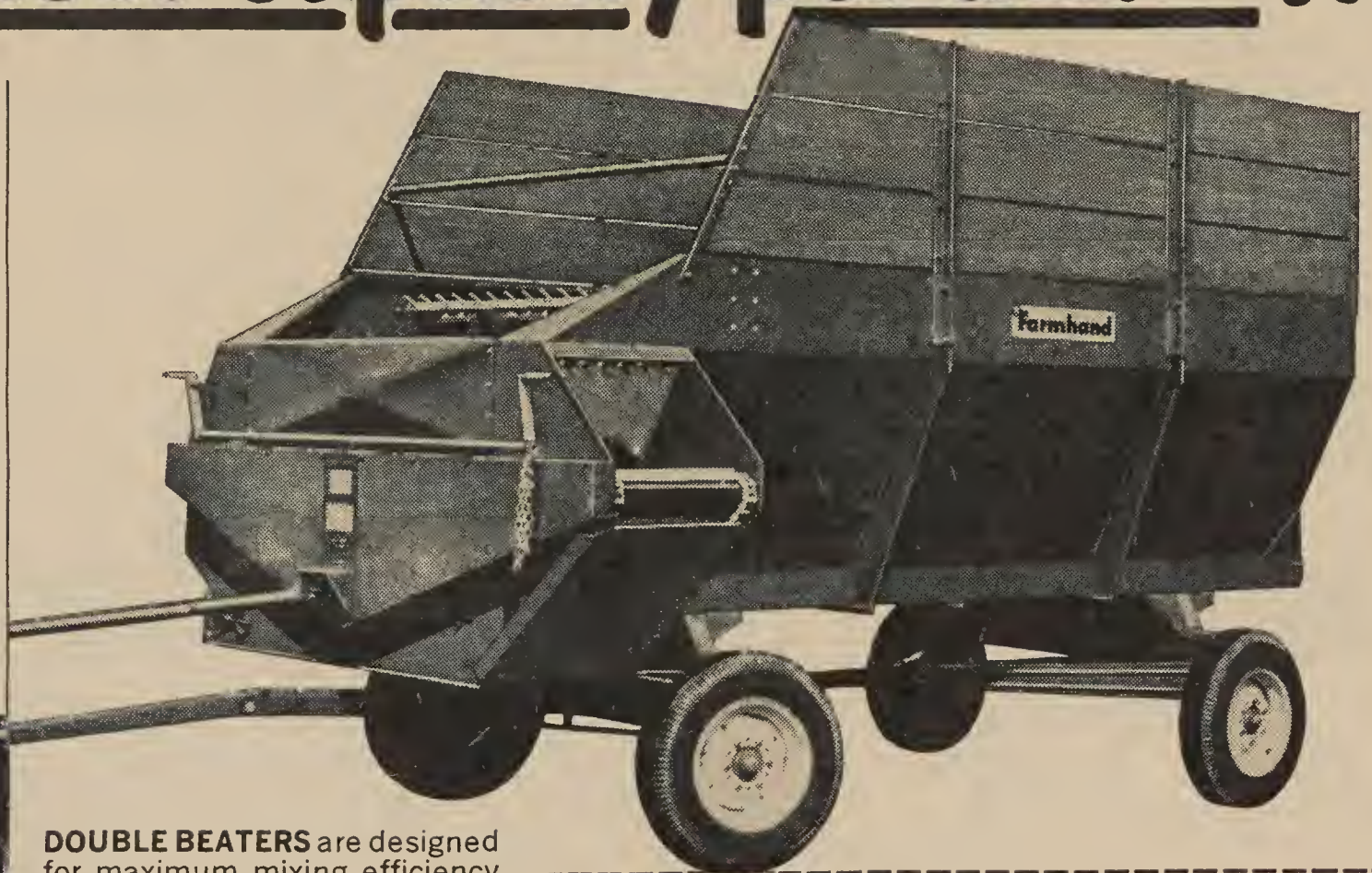
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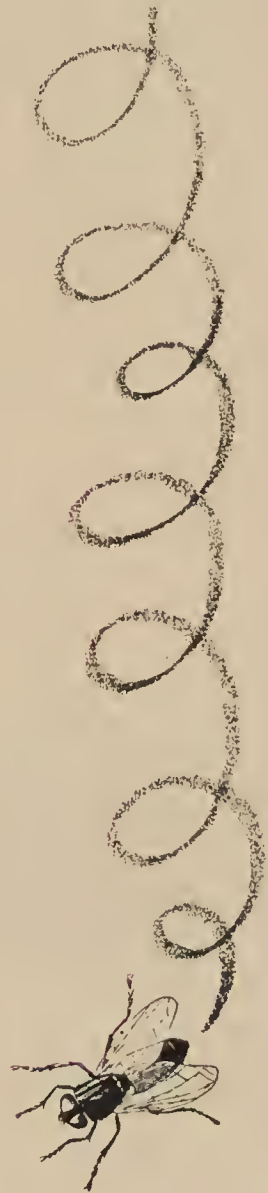
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FARM CHEMICALS

Forage feeding value

(Continued from page 25)

in the chance for weather damage, and in the management requirements for satisfactory storage in conventional tower silos. Also, no advantage in feeding value has been clearly demonstrated for silages below 50 percent moisture.

A range of 55 to 65 percent moisture is suggested as a reasonable goal for average moisture levels of silage. However, a somewhat wider range of moisture content is possible in many circumstances. Silage in the bottom of a conventional silo can be relatively low in moisture with higher moisture content in the top of the silo. For example, the average of the moisture content of the silage in the bottom third of the silo may range from 50 to 55 percent, the middle third from 55 to 60 percent, the top third from 60 to 65 percent, with the 2 to 3 feet about 65 to 70 percent in order to provide a heavier seal before the plastic cap is applied.

Reasonable variation in moisture content of individual loads is not too important and should not be allowed to slow down the forage harvesting operation or to unnecessarily expose the crop to weather damage. It is more important to maintain high harvesting capacity, achieve early-cutting and avoid weather damage than to have a uniform moisture content in each load of silage.

These comparisons show medium-moisture silage to have the highest relative acre potential compared to other types of silage and also higher than that for barn-dried hay. This gives support for greater emphasis on harvesting and storing forages as 55 to 65 percent moisture silage, especially where other factors, besides feeding value, are also favorable to a silage system. An all-silage system would have several advantages, being especially favorable in combination with corn silage.

How to hit the trail

(Continued from page 28)

sure to point out all blemishes and wounds so they won't count against you after the ride.

Don't be afraid to ask questions, if things are not made clear in oral or written instructions. Each ride has somewhat different minor rules, such as whether you are allowed to, or must, unsaddle immediately after the completion of the ride. You should know whether you may loosen the saddle during the ride, whether you go off the trail to water your horse at a stream, etc. Those in charge of a ride should explain all of this in advance and not take for granted that each contestant understands all the rules.

Last but not least, remember that you learn by your mistakes. Trail rides are for everyone, not just the experts. The more you learn, the more fun you will have in a sport that can be enjoyed for a lifetime.

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(Continued on page 31)

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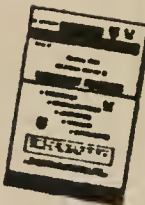
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Food For The Spirit



by Robert Clingan

WHAT IS FAITH?

The Bible says that "Faith is the promise of things to come, the evidence of things not seen." Recently, a mechanic and a poet who died during the past year illustrated and illumined this Biblical description of faith.

The mechanic had been asked to install a trailer hitch on my car. The catalog number indicated that it was the right hitch for the make and the model. Yet, as he tried to fit it to the back bumper I became very pessimistic. Finally I said: "How in the world will you ever get that trailer hitch on this car?" The mechanic grinned and spoke these words of faith: "There must be a way!"

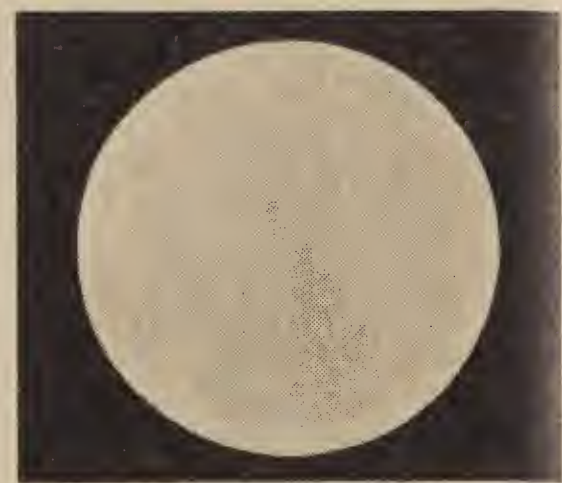
This is the essence of faith. When another person would be frustrated by a combination of circumstances, the man of faith says: "There must be a way." Because of his essential faith, he is open to be led by his imagination, the counsel of his friends, the turn of human events, slight changes of circumstances.

The poet who illustrated this Biblical understanding of faith was the late Robert Frost. For the account of this incident we are indebted to Dr. David McLennan of Brick Church, Rochester, New York. Robert Frost had been questioned about the crisis of "bomb shelters" and preparing for a nuclear holocaust. The reporters interviewing him seemed quite dismayed to find that he was a little unconcerned, or lacked the deep, dismal concern and faithless fear that possessed them. Finally, one of them said: "Can we stand it to live without any belief in the future?"

After several attempts to get his personal faith across to this reporter, Robert Frost expressed it in words that at first seemed even more confusing. He said: "Young man, the founders of this country were not a people who believed in a future . . . they believed a future in!"

What Robert Frost must have been saying is that those intrepid souls who founded this Republic did not have a vague generalized belief in the future . . . either their own or that of the country. They did not have the kind of a belief of a spectator or a speculator; rather they had objectives in which they became so personally and directly involved that they themselves brought them to fulfillment. They were in the very center of their future . . . directing it, shaping it, inspiring it, coaxing it, and when it became only a glowing ember, they themselves fanned it to a vigorous flame. This is more than believing in a future; this is believing a future in.

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American Agriculturist, June, 1965

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American Agriculturist, June, 1965

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BARN CLEANERS—silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, Southampton, Mass.

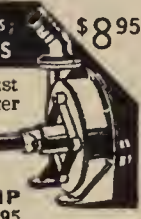
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BULK TANKS—We buy and sell used tanks. Lease program available. George Lange Farm Equipment, Medford Lakes, N. J., Area Code 609-654-8958.

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SOW FEEDING STALLS—Complete \$12.95. Free Literature. Dolly Enterprises, 180 Main, Colchester, Ill.

LAMINATED RAFTERS & Arches for barns and sheds. Douglas Fir bonded with completely waterproof glue. Popular sizes stocked. Extra heavy rafters—extra low prices. Box S-65, Unadilla Silo Co., Unadilla, N. Y.

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HAY CONDITIONERS—30 used hay conditioners of all makes—\$100 and up. Rollabar rakes—New Holland, John Deere, Case, Massey-Ferguson 3 pt. hitch and New Ideas all in stock. 100 used hay balers, some with bale throwers. Mow conveyor, and New Holland elevators from 24 to 53 feet—big savings. Flail choppers both new and used in stock. 135 crawlers, tractors, loaders, dozers, backhoes, winches and lots of other equipment to go with them. Field choppers-blowers and self unloading wagons—\$600 and up. Don Howard, Canandaigua, New York.

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WANTED — **ALLIS CHALMERS** Roto Balers. Brice Creesy, Andover, Ohio.

MC CORMICK REAPER & BINDER and large thrashing machine. Both on rubber, perfect condition \$250.00 takes them. Raymond L. Rider, Davenport Ctr., Del. Co., N. Y.

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American Automatic Model 1503TAF Dryers give you completely unattended, totally automatic grain drying and auguring. It's designed for the average farmer's grain handling system. Just set the controls for desired drying temperature and moisture removal and press the button. All wet grain is dried, cooled and conveyed to storage—automatically. Even shuts itself off! You'll be surprised how economical this unit is to purchase and operate! High capacity portable or stationary models. Write for free circular to . . .

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KELLY DWARF APPLES begin to bear heavy crops of giant fruits next year. Biggest selling varieties. Also dwarf Pears, Peaches, Plums, Cherries. New Fallred Everbearing Raspberries, Geneva Everbearing Strawberries, Grapes, Blueberries, Nuts. Flowering Trees and Shrubs. Write for 85th Anniversary. Catalog in color. Address Kelly Bros. Nurseries, 933 Maple St., Dansville, N. Y. 14437.

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TRIAL OFFER—Limit one roll, black-white, 8—35¢; 12—45¢; Kodacolor, 8—\$2.00; 12—\$2.50; Tops Photo Service, Box 191-R, Lyons, New York 14489.

PLANTS

VEGETABLE PLANTS, June 1st. cabbage, broccoli, Brussels sprouts, 100—\$1.35, 500—\$3.10, 1,000—\$4.75. Tomato, cauliflower, 100—\$1.75, 500—\$4.00, 1,000—\$6.75. Pepper, egg plant, 100—\$2.00, 500—\$4.70, 1,000—\$7.75. Jersey sweet potato, 200—\$2.45. Prepaid. Price list on request. Field Plant Farm, Sewell, New Jersey.

MILLIONS FIELD-GROWN Vegetable Plants. Cabbage: Marion Market, Golden Acre, Copenhagen, Greenback, Ferry's Round Dutch, Penn State Ballhead, Danish Ballhead. Onion: Yellow or White Sweet Spanish. Broccoli, Brussel Sprouts. 300—\$3.50, 500—\$4.50, 1000—\$6.50, Postpaid. Express Collect—\$2.50, 1000. Snowball Cauliflower: 100—\$2.00, 500—\$5.00, 1000—\$7.00, Postpaid. Tomato: (Ready May 15th), Rutgers, Heinz 1350, Glamour, Campbell 146, Fireball, Stokescross No. 5, 300—\$3.50, 500—\$4.50, 1000—\$7.00, postpaid. Express Collect—\$3.50, 1000. Pepper: (Ready May 25th), California Wonder, Yolo Wonder B. Hot Pepper: Hungarian Wax, Long Red Cayenne, Bunch Puerto Rico Potato: 100—\$2.00, 300—\$4.00, 500—\$5.00, 1000—\$8.00, Postpaid. Express Collect—\$6.00, 1000. All plants Virginia state inspected. Grown from certified seed. Moss Pack-ed. Good Plants Guaranteed. Can load trucks at farm. Joyner's Plant Farm, Route 2, Sedley Road, Franklin, Virginia. Area code 703, Phone 562-4540.

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200 ACRES with average buildings, barn cleaner, bulk tank, new silo, 14x40, full line machinery, hay and ensilage, 56 cow dairy, assume financing through FHA. In full production. Huffman Real Estate Agency, Inc., Chautauqua, N. Y., Tel. 357-3873.

ABOUT 12 ACRES, Northeastern Penna. Nicely located. \$7,500.00. Write Box 514-DG, Ithaca, N. Y.

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WE NEED Farms, Acreage, Village and Country Homes, Business Opportunities to sell, New York and Pennsylvania, phone or write, Werts Real Estate, Johnson City, New York.

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SAWDUST AND SHAVINGS in carload lots. Sawdust in bulk truckloads, also baled shavings. Bono Sawdust Co., 33-30 127th Place, Corona 68, New York. Tel. Hickory 6-1374.

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NO HUNTING SIGNS. Mailbox — Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

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ALUMINUM POSTED SIGNS, attractive, enduring. For information write, Met Signs, 5 Herbert Drive, Latham, N. Y.

ALUMINUM "POSTED" SIGNS. Priced from 15¢ per sign. Write for free sample, John Voss, 206 Elmbrook Drive, Manlius, N. Y.

SILOS

SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

A **WOOD SILO** is your best investment—wood means warmth, with little frozen ensilage . . . no acid riddled walls. For catalog write Box BS-65, Unadilla Silo Co., Unadilla, N. Y. Also manufacturers of glue-laminated arches and rafters for barns and sheds. Write for information.

SITUATION WANTED

HOUSEKEEPER: Neat, for adult in 60's. No children. Box 514-DB, Ithaca, New York.

SLIGHTLY RETARDED SINGLE man would like helping farmer around barn. Box 514-DL, Ithaca, N. Y.

Young man 16½ desires summer farm employment. Loves animals. Salary secondary to congenial family. Kamber, 32 Dante Ave., Hicksville, L.I., N. Y.

VACATIONS

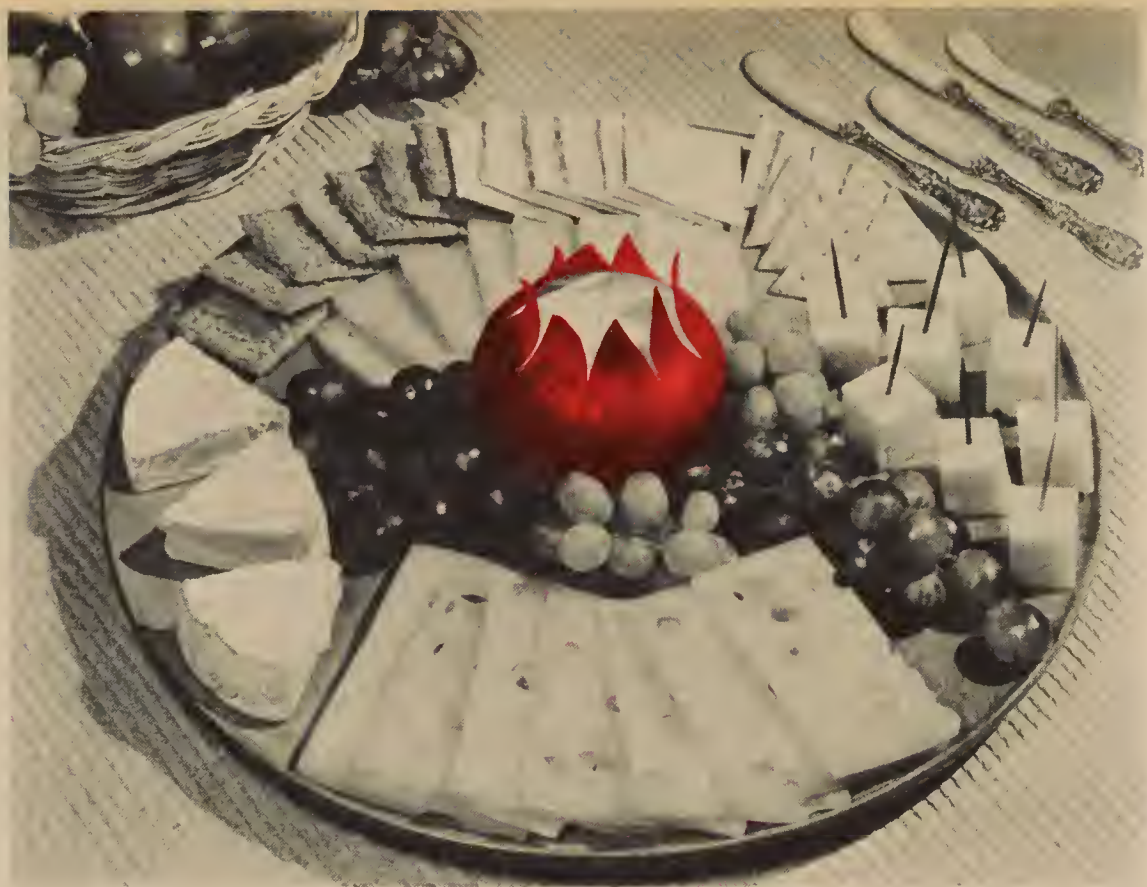
THE VAUGHN HOUSE accepting vacation reservations, couples, singles, quiet resort area. Mrs. Kenneth Vaughn, Box 316, Whitney Point, N. Y.

CHEESE IS VERSATILE!

by Alberta D. Shackelton

A popular and easy-to-serve dessert is an attractive arrangement of fruit and several types of cheese.

Photo: National Dairy Council



SAY "CHEESE" and you will be talking about a food that probably has more varieties than any other one. Within the 18 distinct types, it is possible to name about 400 different cheeses! In June especially, when milk and dairy products reach their peak production, cheese is one of our best food buys. And for year round eating, it provides variety and is an easy way to step up protein and calcium in the diet.

CHEESE AND FRUIT TRAY

A self-service dessert tray attractively laden with several different types of cheese, fruits of the season, and crispy crackers makes a wonderful ending for a meal or an evening party snack. For the center choose a mild Baby Gouda or Edam cheese in scarlet coat, with top shell cut petal-like, or one of the interesting pineapple cheeses. Include some of the Cheddar type, cubed and tooth-picked for easy eating, triangles of Camembert or Swiss Gruyere, smoked club cheese, wedges of Blue cheese, etc.

For fruits, select a whole red-skinned apple, cored and cut almost to the base in wedges; pears, whole, halves, or slices; pineapple chunks or spears, grape clusters, and even add some fresh or preserved kumquats. Don't forget to provide fruit knives or bread and butter spreaders.

CHEESE-MUSHROOM SOUFFLE (with Seafood Sauce)

- 4 tablespoons butter
- 1/3 cup flour
- 1 1/2 cups milk
- 1/2 pound sharp Cheddar-type cheese, cubed or grated
- 6 egg yolks
- 3/4 teaspoon salt
- Dash cayenne pepper
- 1 1/2 cups cooked rice
- 3/4 cup sauteed fresh or canned mushroom slices
- 6 egg whites

Melt butter, stir in flour, and gradually stir in milk. Cook until smooth and thickened, stirring constantly. Add cheese and stir until melted. Combine egg yolks, salt and pepper; stir with fork until mixed, and add slowly with stirring to the cheese mixture. Fold in the cooked rice and mushrooms carefully.

Beat egg whites until stiff but not dry and fold gently into the cheese-rice mixture. Place in 2-

quart casserole. To make a crown, make a shallow path 1 inch from edge all around souffle with a teaspoon. Bake in a slow oven (325) about 40 to 50 minutes or until set and lightly browned. Serves 6.

Serve with Seafood Sauce made by adding 1 cup small shrimp or pieces of large shrimp to 1 cup well seasoned medium white sauce, or to 1 can condensed cream of celery soup, thinned to desired consistency with milk.

MOLDED COTTAGE CHEESE SALAD

- 1 1/2 tablespoons unflavored gelatin
- 1/2 cup cold water
- 3/4 cup light cream or rich milk
- 3 cups cottage cheese
- 1/2 to 1 teaspoon salt
- 1/2 cup slivered, toasted almonds

Soften gelatin in cold water; then place over hot water and stir until dissolved. Blend into the cream or milk. Fold in cottage cheese, salt and nuts and blend well. Pour into an oiled ring mold and chill overnight.

Unmold on bed of crisp greens and fill center with a mixture of choice fruits. Serves 6 to 8.

WELSH RABBIT DELUXE

- 1 pound sharp American cheese, sliced or cubed
- 3/4 to 1 cup rich milk or cream
- 1/2 teaspoon dry mustard
- 1/2 teaspoon Worcestershire sauce
- Dash cayenne or black pepper
- 12 sausage links, cooked OR
- 12 strips crisp, cooked bacon
- 6 tomato slices, medium thick
- Sliced stuffed olives
- Toast points or slices

Melt the cheese over hot (not boiling) water. Gradually stir in the cream, mustard, Worcestershire sauce and pepper. Serve over toast, topping each serving with tomato slice garnished with olive slices, and lay sausage links or bacon strips along side. Serves 6.

Cheesecake

This popular dessert comes in two versions: the so-called rich and velvety textured one made with cream cheese, or the less rich, more grainy cake made with cottage cheese. A 9" spring-form cake pan is most often used for cheese cake, but a deep cake pan may also be used.

The baked cake usually shrinks slightly, but slow cooling will help

to lessen this. Refrigerate after cooling. Cheese cakes without glazes may be frozen for about a week. The following favorite recipe was given me by a Scotch friend.

CHEESECAKE

- 2 cups fine zwieback crumbs
- 1/2 cup sugar
- 1/2 teaspoon cinnamon
- 1/3 cup soft butter
- 1 pound small curd cottage cheese
- 1 cup sugar
- 2 tablespoons flour
- 1/4 teaspoon salt
- Rind and juice of 1 lemon
- 1 tablespoon vanilla
- 1 cup light cream
- 4 eggs, separated

Combine zwieback crumbs, sugar, cinnamon, and butter and blend well. Reserve 1/2 cup of this mixture. Press remainder in even layer over bottom and sides of well buttered spring form pan; chill.

Combine cheese, sugar, flour, salt, lemon rind and juice, vanilla, and beaten egg yolks. Beat thoroughly. Stir in cream. Beat egg whites until stiff but not dry and fold into mixture. Pour into pan. Sprinkle top with reserved crumbs.

Bake in moderate oven (350) 45 to 60 minutes, or until center is firm. Turn off heat, open oven door, and let cake cool for about 1 hour. Finish cooling on cake-rack and remove from pan. Serves about 6.

ROQUEFORT FRENCH DRESSING

- 1 cup tarragon vinegar
- 1 cup salad oil
- 3/4 to 1 cup sugar
- 1 tablespoon dry mustard
- 1 tablespoon paprika
- 1/2 teaspoon salt
- 6 tablespoons water
- 1/2 cup ketchup or tomato juice
- 1 cup crumbled Roquefort cheese

Combine all ingredients in quart jar and mix well. Keeps well in refrigerator. Shake before using. Makes 2 1/2 to 3 cups.

CREAMY BLUE CHEESE DRESSING

- 1 cup crumbled Blue cheese
- 1 8-ounce package cream cheese, softened
- 1 cup dairy sour cream
- Light cream

Blend together the crumbled Blue cheese and softened cream cheese until light and fluffy. Beat in sour cream and enough light cream to make desired consistency. Season with salt and pepper to

taste. Serve over lettuce wedges or on tossed salad. Chopped chives may be added if desired.

SWISS CHEESE PIE (Quiche Lorraine)

- 1 fluted pastry-lined deep 9-inch pie pan
- 1/2 pound bacon, cooked, drained and diced
- 2 tablespoons finely minced onion
- 1 6 oz. package Swiss cheese, cut in 1/4 inch strips
- 4 eggs, lightly beaten
- 2 tablespoons melted butter
- 2 tablespoons flour
- 2 cups milk
- 1/2 teaspoon salt
- Dash cayenne pepper

Combine bacon, onion, and cheese strips in bottom of pie shell. Combine eggs, butter, flour, salt and pepper; stir in milk. Pour over cheese and bacon.

Bake in hot oven (425) for 15 minutes. Reduce heat to 325 and continue baking 30 to 40 minutes longer, or until knife point inserted in center comes out clean. Do not over-bake. Cut in 6 wedges to serve as main dish.

DO YOU HAVE . . .

A recipe for "Dutch Cookies"? Mrs. Clifford Ribble, R.D. 1, Beaver Dams, N.Y., says her grandmother used to make these old fashioned cookies and that the longer they stood, the better they tasted.

Instructions for making children's play putty? If so, please send to Mrs. Rufus Straub, R.D. 1, Shamokin, Pa.

A "recipe" for making library paste that will keep like paste purchased in jars? Fred S. Hinman, R. D. 1, Roscoe, N. Y., would like this.

Directions for making the afghan which Queen Mary taught the Duke of Windsor to make when he was a child? Mrs. George Sturgeon, Box 65, Colrain, Mass., would like very much to find them.

A recipe for Watermelon Pie? This request is from Mrs. Rena Edwards, West Wardsboro, Vermont.

American Agriculturist, June, 1965



Garden Talk

By NENETZIN R. WHITE

JUNIPERS

Junipers fill a large gap that exists in the ornamental field for good evergreens. These plants will tolerate hot and dry weather, poor soil, and will withstand city conditions. They all need full sun for best development. There are approximately 40 species in the Northern Hemisphere, and the color range is extensive—green, green tipped with yellow, grey, silver, and blue. Most of them have very ornamental fruit. The size range is also great—from tall, columnar types to dwarf, slow-growing creepers.

I would like to enlarge upon some of the newer varieties, many of which are well known to the trade but are new to most gardeners.

Juniperus chinensis pfitzerina has been an old standby since the turn of the century. It is a delightful shade of medium green with graceful, arching branches. Its height varies from 4 to 6 feet, and it has an even wider spread. There is an upright form of this blue juniper that shows great promise, and occasionally the rapid growing forms are staked.

This plant is the partial parent of many others. One unusual one is *J.c. glauca heitzi*, which has blue-green foliage, makes rapid growth, and can attain 15 feet in height with unusual soil conditions. You must remember that junipers are indeed mixed up, for most heitzi do not grow this tall. Usually they will average only 4 or 5 feet.

J.c. aurea or golden juniper is a pfitzer sport with beautiful golden-yellow young foliage. The effect is as if the tips had been dipped in daffodils. There is a delightful

dwarf pfitzer juniper, *J.c. compacta*, a wonderfully symmetrical plant, rarely growing more than 2 or 3 feet high.

Juniperus horizontalis plumosa (or andorra juniper) makes a good ground or bank cover. This is flat topped with a low, compact habit of growth. It has grey-green foliage during the summer and turns a rich red-purple in the fall. Each spring the mahogany color fades into a soft blue-green as the new growth starts. This annual color change adds to its interest.

Creeping Junipers

Of the creeping junipers, there are three that I consider outstanding. *J.h. wilsoni*, often called Blue Rug, is a flat creeper that will also droop over walls. It retains its exquisite soft blue color all winter. *J.h. Bar Harbor* is a sturdy selection of native juniper growing around Bar Harbor, Maine. This is very compact and also trails over rocks or walls. The third, *J. conferta* (or shore juniper) is a flat, trailing, low ground cover that will tolerate sandy soils and salt.

Frankly, I have just highlighted a few of the great family of junipers, hoping that you will investigate further and use more of these in your sunny locations. Masses of them on steep banks can eliminate a lot of mowing and maintenance problems.

LAWNS

Your lawns should be lush and green by now. If they aren't, give a feeding of good organic fertilizer. And how about weeds—do you

(Continued on page 37)



PREPARE A CAR KIT

PHOTO: THE DOW CHEMICAL CO.

Before summer travel begins, set up a "mother's helper" car kit—a small box or travel case will do. Once it's packed, keep the kit handy, always ready to pick up and take along. Items to have in case of "small" emergencies include:

First aid kit
Bar of soap in Handi-Wrap sandwich bag
Comb

Roll of Handi-Wrap
Handi-Wrap sandwich bags
Extra camera film
Flashlight, extra batteries
Two new toothbrushes
Sun lotion
Sewing needle, thread, assorted buttons, safety pins

If traveling with baby, add these: Dishes and silver, sterile nipple and bottle, vitamin bottle and dropper, toys and special canned foods. Each item should be wrapped carefully in Handi-Wrap.

The AA Clothes Line

4844. Sun quartet. Printed Pattern Child's Sizes 2, 4, 6, 8. Size 6 top, shorts 1-3/8 yards 35-inch. Also duster, slacks. 35 cents.

4923. Cool skimmer with V neck, wide straps. Printed Pattern Half Sizes 12-1/2-24-1/2. Size 16-1/2: 2-3/4 yards 39-inch. 35 cents.

861. Scalloped jacket in crochet. Make with, without sleeves. Directions for sizes 32-34; 36-38; 40-42; 44-46 included. 25 cents.

861

4852
14 1/2-26 1/2

4899
12-20

4675
12 1/2-22 1/2

9256
10-18



9256. Casual with drawstring at waist. Printed Pattern in Misses' Sizes 10-18. Size 16 takes 3-3/8 yards 35-inch fabric. 35 cents.

4852. A smart dress and jacket duo. Printed Pattern in Half Sizes 14-1/2-26-1/2. Size 16-1/2 set, 4-1/4 yards 45-inch. 35 cents.

4899. Wrap and button princess. Printed Pattern in Misses' Sizes 12-20. Size 16 takes 5-1/8 yards 45-inch fabric. 35 cents.

4675. A side-buttoned style with tucks. Printed Pattern Half Sizes 12-1/2-22-1/2. Size 16-1/2: 3 yards 39-inch fabric. 35 cents.

878. One yard or less for each apron. Embroider spring flowers in gay colors. Transfer, printed pattern for 2 aprons. 25 cents.

DRESS PATTERNS are 35¢ each. NEEDLEWORK PATTERNS are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011. Write name, address, pattern size and numbers clearly.

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3,000	25 50	12 yrs. 11 mos. 5 yrs. 7 mos.	3,890 3,364
5,000	50 100	10 yrs. 3 mos. 4 yrs. 6 mos.	6,151 5,489
10,000	75 100 200	14 yrs. 11 mos. 10 yrs. 3 mos. 4 yrs. 6 mos.	13,471 12,301 10,979
20,000	200 300 400	10 yrs. 3 mos. 6 yrs. 3 mos. 4 yrs. 6 mos.	24,602 22,750 21,957
30,000	200 500 800	17 yrs. 8 mos. 5 yrs. 7 mos. 3 yrs. 4 mos.	42,561 33,635 32,114

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In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

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VISITING

with

Home Editor Augusta Chapman

SO MANY PEOPLE talk about the "good old days" and how they'd give anything to go back to the leisurely life our parents and grandparents lived 40, 50, or 60 years ago. Undoubtedly life was more leisurely then, but it was an awful lot harder too.

I always take such remarks with a grain of salt, wondering if the women really would want to exchange our modern conveniences for a washboard and galvanized tub (or even for the hand-operated washing machine I remember my mother using), an ice refrigerator with the drip pan under it, the kerosene lamps, etc. Or if the men really would want to return to the old-time ways of farming — walking behind a team of horses to plow, drag, and cultivate, cutting the winter's supply of fuel from the farm woodlot, and the summer's ice supply from the pond.

After Mrs. Hasse's story, "Extinct... The Country Cook," appeared in our March Home pages, I received a lovely letter from Mrs. G. Glenn Davis (Amy) of Corry, Pa. I like the way Mrs. Davis tells how she enjoys her old, wood-burning kitchen stove and the fireplace in their family room, but frankly admits she wouldn't want to give up her electric range or their automatic baseboard heating system.

Mrs. Davis writes, "I am old enough to remember all the old-time customs of home cooking and food preparation. With my parents, brothers and sisters, I lived on a farm until my marriage. We all helped in preparing apples and corn for drying, and our parents raised their meat, put down pork in brine, made corned beef, and smoked meat.

"All our baking came from our own kitchen and included homemade bread, cornbread, pies, cakes, and cookies. We picked blackberries and wild strawberries which were canned along with garden vegetables for winter use. So much happens in one lifetime, and still the longest one is so short!

"Now I live with my husband on a busy state highway, in a stone house we built ourselves. Our two sons also helped with the building, carrying stones and mixing mortar, and having a grand time as they grew up. Deprived perhaps of what present-day youngsters feel they must have, our boys were happy when on winter evenings they popped corn, made fudge, and studied, feeling secure with their parents. They have been grown and gone now for some years, long enough for our elder son to give us a fifteen-year-old granddaughter.

"And so as I read this article, and the lady said wood ranges are gone along with old fashioned cooking, I felt I would like to write you of my own kitchen and way of life. I do have a modern electric kitchen, but engulfed in a wave of nostalgia, a couple years ago I purchased an old wood range, perhaps 60 or 70 years old. There is seldom a day of the whole year that a fire isn't laid in it each morning.

"Yesterday I put beans to soak. Today I cooked them with pork, homemade chili sauce, and our own maple syrup. Now they are baking in a bean pot in the range oven. They will cook most of the day for

a delicious evening meal, served with bread I make myself and wild strawberries from my freezer.

"Our home is heated with automatic baseboard heat, but we have a fireplace in the family room which has a fire in it all day and night during the winter. The heat from it and the wood range are so comforting and, we feel, good for us older people.

"I would dislike giving up my automatic washer and dryer, electric range, freezer, automatic heat, TV, and so many things that make for an easier way of life. But I still am thankful for some of the things I have and do that connect me with the past.

"We older people talk more of the past, perhaps because we have so little left of the future. But we still make plans, plant in the spring, raise a few chickens, strawberries, vegetables, and flowers. And we try to put God first in our lives, others second, and ourselves last."

Thank you, Mrs. Davis, for saying it so nicely!

Major Appliances

Have you ever wondered just how long you can expect to use that new refrigerator or range? "About 16 years if you follow the average owner's pattern," says Jean S. Pennock, economist with the USDA's Agricultural Research Service.

Here are Miss Pennock's estimates of the "service life expectancy, purchased new, under one owner" of other types of household equipment:

Automatic washer	11 years
Wringer washer	10 years
Dryer	14 years
Freezer	15 years
Upright cleaner	18 years
Tank cleaner	15 years
Elect. sewing machine	24 years
Automatic toaster	15 years
Television set	11 years
Living room wool rug	14 years

Our record is pretty good except for vacuum cleaners and living room rugs, where we fall far short of the average. It isn't because I wear out the rug (and the vacuum) cleaning it too often either!



HOMEBOODY

By Helen True

I only want a little home
A little place to call my own
A patch of grass, a flower bed
A garden I myself have sown.

I want to light the kitchen fire
And put clean papers on the shelf,
To keep the windows shining bright
And know I've done it all myself.

And then I'm sure I'll be content;
For though one search in every clime,
Earth holds no other sign of peace
Like chimney smoke at supper time.

American Agriculturist, June, 1965

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Founded by the Grange and with a philosophy of service to rural America, this company firmly believes in free enterprise through cooperative effort.

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AROUND



the HOUSE

New from Reynolds Metals Company: Freezerfoil Firefoil—thicker and stronger than even Heavy Duty Reynolds Wrap. Wonderful for freezing large cuts of meat and for outdoor cooking.



Another "first" from Westinghouse — Meat Keeper drawers in their new refrigerator line. Will keep even ground beef fresh for seven days without freezing.

Freeze Honey. Deep freeze honey if you intend to keep it a long time, suggest researchers at Wisconsin Agricultural Experiment Station. It won't get sugary or turn dark. Remove a small amount at a time — enough to last a week or so.

SEND FOR THESE!

"Freezing Foods at Home," 80-page book covering all phases of home freezing. Book available for 35 cents from Oxboro Heath Company, Box 7097, Dept. AA, Minneapolis, Minn. 55428.

"Feeding A Crowd." This 36-page book with buying guides, menu planning aids, figuring cost advice, and quantity recipes is just 50 cents a copy. Send with name and address to General Foods Kitchens, Dept. WM, White Plains, N. Y. 10602.

Garden

(Continued from page 35)

have any? If so, use a good specific herbicide. These are usually classified for vining weeds, broad leaved weeds, crabgrass, etc.; or you can get combinations of these herbicides and a fertilizer. Now, when weeds are in lush growth, is a good time for the kill.

The old idea was that during a drought your lawn should be watered deeply or not at all. Practice has proven, however, that even a light sprinkling will help some, so do what you can if your lawn is suffering from dry weather.

New shrub, evergreen, or shade tree plantings really need deep watering during dry periods. But again, if all you can do is sprinkle, go to it! It also helps to hose down all evergreens occasionally. This keeps the foliage clean and breathing, and frequently washes off red spider. To check for red spider damage, place a piece of paper under a few branches and shake. If you see pepper-like dots, get busy and spray.



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

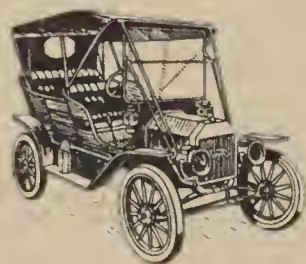
Amsterdam	WAFS	1570 kc.	Niagara Falls	WHLD	1270 kc.
Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oswego	WOSC	1300 kc.
Boonville	WBRV	900 kc.	Plattsburgh	WEAV	960 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.

Northeast Radio Network

Ithaca, New York



ED EASTMAN'S PAGE



MY UNSEEN FRIENDS

One late fall night some years ago, when Hugh Cosline (then associate editor of *American Agriculturist*) and I were traveling from Ithaca to Albany, the lights of the car went out. If you have ever had this happen to you, you know what a helpless, fearful feeling it gives you. We eased the car along in the dark for about a mile, keeping sharp watch for cars going or coming. Finally we pulled into a farm driveway, got out, raised the hood, kicked the car some and used some hard language — all to no avail. We just couldn't get those lights to come on.

A young farmer came out of the milking stable with his lantern to see what it was all about. But he didn't care much, and was about to go back to the barn, lantern and all, when I asked him if he read *American Agriculturist*. With more interest in his voice, he allowed that he did. Then I said:

"This is Mr. Cosline, associate editor, and I am E. R. Eastman, the editor."

The boy turned and started on a run for the barn, shouting: "Pa, Pa, the *American Agriculturist* is here!"

That brought Pa out of the barn in a hurry, and from then on both the boy and his father couldn't do enough for us until finally we got the lights working again.

I have always remembered that incident because it was one of many proofs of the thousands of unseen friends that Hugh and I (or anyone else from the staff of *American Agriculturist*) have among our big family of readers. It is a nice feeling indeed to know that I can call at any one of thousands of homes where *American Agriculturist* goes and be invited to a meal or to stay the night, with a welcome like that of a close friend or relative.

My mail is loaded every week with letters from friends I have never seen who address me by my first name, or start their letter with "Dear Friend." Then the letters often go on to say: "Although I have never met you, I feel that I have known you a long time and that you are really my friend."

You can just bet I am! I treasure all such letters . . . they mean more to me than anything that could be measured in money.

For many years every issue of *American Agriculturist* has been received in thousands of homes

almost as a member of the family, and I am proud of the place it has on the family reading table, and, better still, in the hearts of our readers.

I think you who read the paper know that the great goal or purpose of my life (as with other members of the staff) has been not only to help farmers make a better living but, more important, to make it possible for them to get more happiness out of life.

Born and raised in a poor farm family, as a teacher of agriculture, a former county agent, and as a farm paper editor and writer, I know from firsthand experience what your problems are, and I can say truly that I have devoted my life to helping you solve them. The big payoff — the real compensation — has been your friendship.

So, my unseen friends as well as those I have met, I greet you and tell you that your friendship is returned. I wish it were possible "when the sun shines on both sides of the fence again" to sit with you for a long, long visit under "the shade of the old apple tree." Maybe that will be possible some time, somewhere, when the mists have rolled away. In the meantime, I hope you take this page in every issue as a personal letter of friendship from me to you.

TAXES WILL DESTROY US

I am both mad and scared — mad because taxes are taking life savings set aside to take care of my family and myself, and scared because high taxes will undermine and finally destroy the country I love.

It seems to me that the people we have elected to public office — both in the state and federal government — have completely lost their senses.

On top of the ruinous taxes we are already paying, a Democratic Legislature and a Republican Governor in New York State have passed a 2 percent sales tax and doubled the registration tax on cars. How much more load will the camel's back stand before breaking?

The average family's share for all levels of government was approximately \$2,600 in 1964. It is much more than that now.

According to a tax foundation study, the total tax for 1964 was

If you were a farm boy fifty years ago this picture will recall long June days in the corn and potato fields. See article on this page entitled "Did You Do This?"



DID YOU DO THIS?

The picture on this page will give old-timers a reminiscent smile. Day after long day I have followed a horse back and forth for endless miles cultivating the corn and potato fields of Day Before Yesterday. Like the man in the picture, many, many times I have stopped to get the dirt and small stones out of my shoes, and to give my tired feet a rest. If you were a farm boy fifty years ago you will know just what I am talking about.

But now, of course, the one-horse cultivator, like so many other old practices, has gone into the limbo, succeeded by modern tractor-powered cultivators, or by no cultivation at all.

This picture is like the many other pictures and stories of country life and living a half century ago in my new book, "Journey to Day Before Yesterday." This book will set you to dreaming. You will laugh a lot, sometimes with tears in your eyes, as you relive your own adventures and misadventures when life was young and gay.

One of the greatest pay-offs of my life are the enthusiastic letters written about this book by hundreds of readers.

To get a copy postpaid, send \$5.95 to Department Book, *American Agriculturist* and Rural New Yorker, Savings Bank Building, Ithaca, New York.

EASTMAN'S CHESTNUT

In every community, no matter how small, there is always one person who is regarded as the essence of everything that a man should not be.

We have such a person in ours. He has no shame, lives openly with a woman, takes everything he can get, and gives nothing. He takes absolutely no care of himself or his property. He has no civic pride, cares nothing for clothes, is anti-social, has no opinions on current topics, never votes, cares nothing for the radio, makes all the noise he cares to without regard for others' feelings, eats like an animal but never buys any food.

He has none of the attributes of a gentleman, and is very careless about his person. But in spite of all this we love him — for he is our baby son.

American Agriculturist, June, 1965



JUNE

It seems to me that the month of June makes up for all the bad weather of all the rest of the year.

June is the month of roses in our yards, and birds singing at dawn in the trees. It is the month of gentle sun on our backs and fragrant breezes on our faces . . . the month of graduations and weddings, when so many young people launch themselves into life with such high hopes and ideals.

Above all, June is the month when we realize how good it is to be alive and in harmony with all the goodness and beauty around us.

THE WOMAN'S PART

Recently, an official connected with a government lending agency emphasized the important part that farm women play not only in the actual operation of the farm but in making decisions.

I know a farm woman with three small children who keeps all of the financial records for a large dairy farm, and makes out the very complicated income tax reports. This woman, and many like her, know as much about the financial details of the business as do their husbands.

I think and hope that the time has passed when it is necessary for women to work in the fields and barns, but they can be and are of great help in cooperating with their husbands in the management of the farm business.



SERVICE BUREAU

CAN YOU HELP?

For several years, whenever space permits, we have been printing requests from subscribers who are seeking all sorts of help, ranging from the words to old songs or poems to out-of-print patterns or books. Judging by the response from our readers, this is a popular feature. They enjoy reading through these requests and helping when they can.

Regrettably, we have a tremendous backlog of these requests so, in an attempt to bring them a bit more up to date, we are printing more than the usual number in this issue.

If you have any of the answers, please send them direct to the person whose name and address is given, not to us.

Mrs. Merritt Timmerman of Cohocton, N.Y. would like the following song:

"A life on the ocean wave,
A home on the rolling deep,
Where the boundless waters rage
And the winds their revels keep."

If you know the words to "The Old Armed Chair" or "Rocking Alone in an Old Rocking Chair," please write Miss Lena Heath, R.F.D. 1, Box 107, Chenango Forks, New York.

Mrs. Herbert Ruggles, 8732 Canal Rd., Brockport, N.Y., is trying to locate a copy of "The Keeper of the Bees" by Gene Stratton Porter.

Please write to Miss Marjorie H. Martin, Douglas Library, Hebron, Conn., if you know the old, ballad-like poem, "Bob's Wonderful Bicycle." It begins: "Bob Burns was a boy with a wonderful mind for cogs, cranks, and levers, and every kind of machine."

Mr. Richard A. Hopkins, R.D. 2, Mt. Morris, N.Y., would like to obtain a copy of the book, "Foote Family, comprising the Genealogy and History of Nathaniel Foote of Wethersfield, Conn. and his Descendants," Vol. I by Abram W. Foote, printed by Marble City Press, The Tuttle Co., Rutland, Vt. in 1907.

Addresses Wanted

Occasionally, we print requests for addresses of friends or relatives who may not have been heard from in years, and we have been helpful in locating a number of them.

If you think you may know any of the following people, please write to Service Bureau, American Agriculturist and the Rural New Yorker, Box 367, Ithaca, New York.

Hubert Keyton, Jr., son of Patty and Hubert Keyton, who formerly lived in Shirley, Mass.

Catherine Bacchi, who formerly lived with the Spauldings in Shirley, Mass.

James (Jim) Trojano or Trojan, wife Elizabeth, son of Dominic and Elizabeth (Filgate) Trojano, who was last heard of in West Springfield, Massachusetts.

Michael and Joseph Gerlog, who lived in Pennsylvania when last heard from. Their brother would like to hear from them.

Edna Camp, who went to school in Frankfort, N. Y., formerly from New Berlin, N. Y. area.

Lewin Head or some of his family, when last heard of was in Milford, Mass.

Edward Franklin Tolson (nickname Rebel) who was born in Knoxville, Tennessee and whose address in 1926 was: USS Utah Navy Yard, Boston, Massachusetts.

FACTS OF LIFE

I can't believe it! What a shock! He was always so careful! Don't we take a lot for granted? Yes, until we or a loved one is rushed to the hospital, treated at the doctor's office or laid up at home. Chances are you haven't had an accident—be thankful. Let's turn the coin over though and look at the accident facts of life in the U. S. during 1964.

One Disability In Every 18 Persons!

105,500 persons accidentally killed

10,300,000 persons disabled by non-fatal injuries

Automobile Accidents - 47,800 Killed

1,700,000 disabled beyond day of accident

Home Accidents - 28,500 Killed

4,500,000 disabled beyond day of accident

What does this mean? Besides the misery and suffering it just plain costs money to have an accident. You may find a friend's name in the partial list of recent payments. They received help when they needed it by carrying North American Accident protection.

Most Accident Injuries Happen July to Sept.

Frank Cuomo, Altamont, N.Y.	\$ 822.77	Kenneth C. Ames, Canton, N.Y.	\$ 302.13
Piece of steel in eye		Knocked down by cow—bruised chest & ribs	
Earl Herring, Fillmore, N.Y.	182.86	Charles C. Cowin, Stillwater, N.Y.	365.91
Moving elevator—injured wrist		Fell thru hay chute—broke wrist	
Arthur Bosket, Windsor, N.Y.	100.00	Wilber Wesley, Schoharie, N.Y.	140.00
Using chain saw, cut leg		Fell—injured shoulder	
Elsie R. Rhodes, Little Valley, N.Y.	904.78	Calvin Cole, Summit, N.Y.	124.28
Fell downstairs—injured back, hip, ankle		Thrown from tractor—injured chest	
Bessie L. Knapp, Sandusky, N.Y.	110.00	Beatrice Callahan, Beaver Dams, N.Y.	299.56
Hit by car—injured leg, knee		Fell downstairs—injured shoulder	
H. Cornelius T. Ryan, Aurora, N. Y.	405.72	Anne Snell, Bath, N.Y.	126.86
Knocked against fence—broke ribs		Slipped & fell—broke arm	
Eugene Newhouse, Clymer, N.Y.	308.00	Walter McDowell, Wayland, N.Y.	1235.00
Kicked by cow—injured back		Slipped & fell—injured back	
Wilbur Vance, Beaver Dams, N.Y.	475.55	John Fafinski, Jr., Jamesport, N.Y.	125.71
Fell in barn—internal injuries		Fell from tree—injured foot	
Robert Grow, Sherburne, N.Y.	236.28	Georgia Gould, Trumansburg, N.Y.	259.78
Crushed by cow—injured arm		Fell—broke hand	
Gilbert Wood, Ancram, N.Y.	125.00	Richard W. Hall, Lake Luzerne, N.Y.	182.86
Slipped & fell—injured shoulder		Hit by cow—broke arm	
Theodore Law, East Freetown, N.Y.	167.14	Cora Belle DeBoofer, Marlon, N.Y.	101.14
Slipped getting off tractor—injured knee		Slipped on stairs—broke thumb	
Fred Holcomb, Walton, N.Y.	456.40	Eugene Beach, Webster, N.Y.	1136.71
Repairing roof—injured back		Piece of steel in eye	
John H. Pafk, Akron, N.Y.	184.00	Leita M. Bey, Attica, N.Y.	1415.00
Starting chain saw—injured back, leg & knee		Slipped & fell—broke hip	
Mary Jane Clarke, Bergen, N.Y.	214.29	Carol Lee Tears, Mansfield, Pa.	364.71
Fell from ladder—injured back		Saw kicked back—cut thigh	
Peter Caiola, Frankfort, N.Y.	224.87	Torrance Boyles, Knoxville, Pa.	189.36
Auto accident—injured chest & elbow		Fell from horse—broke arm	
Dorothy Thoma, Lowville, N.Y.	585.61	Nina Perkins, Oswayo, Pa.	133.27
Slipped while lifting—injured back		Stepped on nail	
Seth Lehman, Castorland, N.Y.	235.71	Coe Douglas, Pleasant Mount, Pa.	108.56
Kicked by cow—injured foot		Hit by cooler cover—injured elbow	
Etta H. Shumway, Glenfield, N.Y.	556.45	Ralph Osmum, Columbia, N.J.	107.14
Fell downstairs—broke elbow		Stepped on by cow—injured foot	
Thomas Hatch, Morrisville, N.Y.	525.40	Orrie Terpstra, Sussex, N.J.	910.75
Car hit tractor—broke arm, cut scalp		Auto acc.—injured back	
Hugo Klafehn, Hamlin, N.Y.	1325.00	Stanley Soboleski, Marlton, N.J.	1292.00
Fell from tractor—broke thigh		Auto Acc.—broke ankle	
John J. Hernigle, Randall, N.Y.	141.00	Ida E. Jacobs, Monmouth Junct., N.J.	592.86
Fell—injured hand		Auto Acc.—cuts, injured chest	
Charles Updyke, Fort Plain, N.Y.	265.08	Nicholas A. Russo, Mt. Holly, N.J.	503.76
Bumped by heifer—multiple bruises		Fell moving pipe—inj. back	
Herbert C. Belile, Rome, N.Y.	303.00	Shirley G. L. Shinn, Columbus, N.J.	121.43
Auto acc.—cut forehead, chin, mouth		Fell downstairs—broke shoulder	
Winifred E. Mason, Jamesville, N.Y.	760.00	William E. Palmer, Jr., Amherst, Mass.	607.14
Hit by car—injured knee & arms		Fell—broke leg	
Reid Becker, Ionia, N.Y.	444.28	Bernard Henderson, Corinna, Me.	125.72
Tripped over rug—broke ribs		Caught in P.T.O.—inj. ankle & foot	
Barney Dembek, Goshen, N.Y.	100.00	Ellsworth E. Coffin, Bailey Island, Me.	564.28
Slipped on drawbar—injured back		Auto Acc.—inj. knees, broke ribs	
Clarence A. Baker, Albion, N.Y.	554.48	Anne Lora Russin, Underhill, Vt.	168.56
Slipped & fell—injured back		Auto Acc.—injured shoulder	
Paul E. Waldron, Fulton, N.Y.	808.14	Kenneth A. Blanchard, Bethel, Vt.	197.14
Playing softball—broke ankle, injuries		Attacked by bull—broke ribs	
John Gorney, Richfield Springs, N.Y.	940.15	John Swinington, Brandon, Vt.	251.42
Hit by brake cover—broke jaw, cut face		Auto Acc.—cut face, inj. head	
Donald Moody, Troy, N.Y.	167.13	Emma Coursey, Middlebury, Vt.	630.00
Knocked down from tree—broke rib, cuts		Knocked down by car—broke ribs, inj. leg	
Joseph Scott, Lisbon, N.Y.	116.90		
Overcome by smoke			

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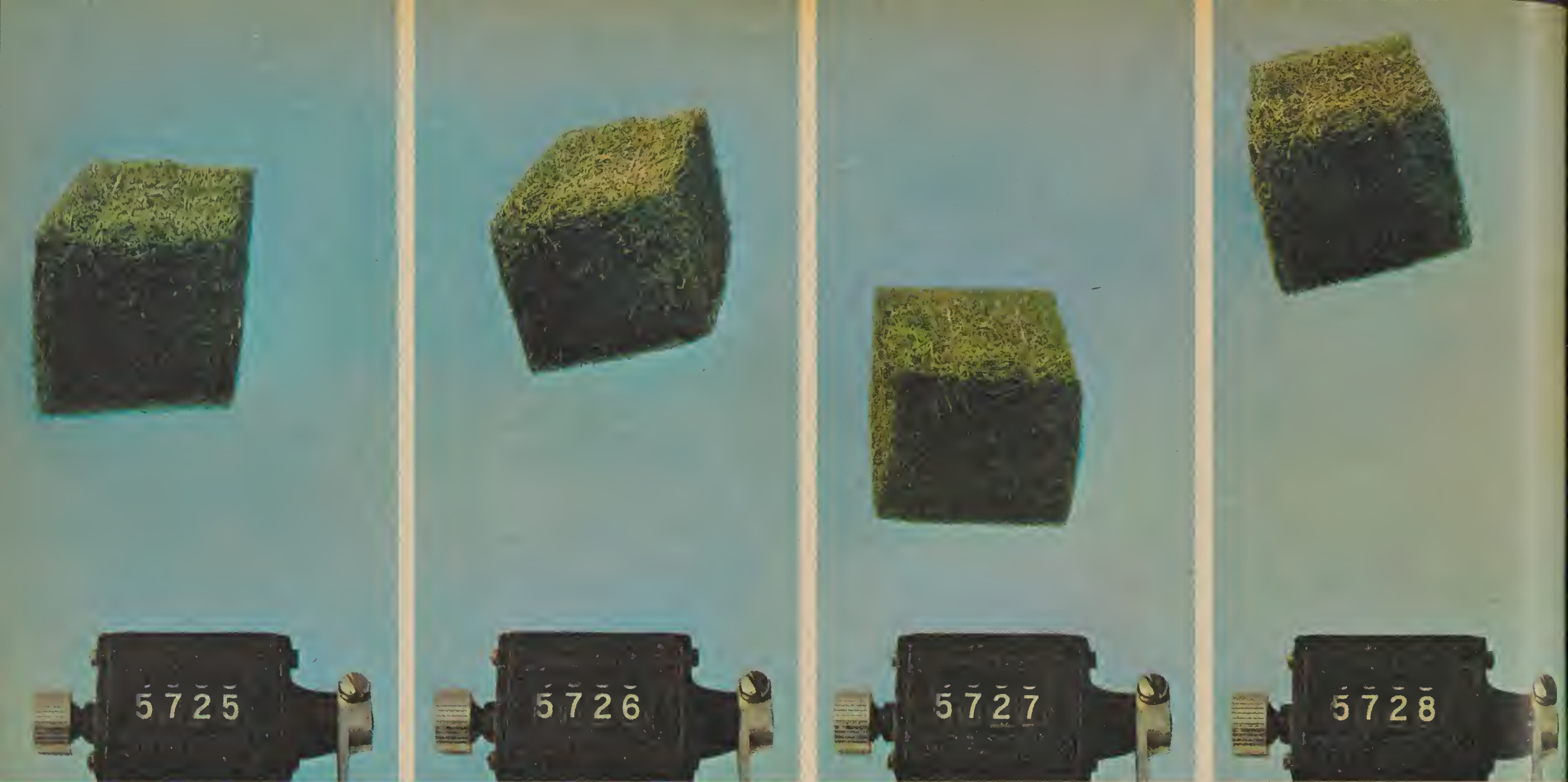


WANTED

I'm looking for two District Fieldmen for Otsego and Washington-Saratoga Counties. If you have the qualifications to meet people, have a dependable car, want a year-around position with income of \$100.00 or more a week to start, send me your qualifications.

HARRY ENNIS

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American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER





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Here's big capacity at a down-to-earth price—the New Holland PTO Hayliner® 268! A “268” ticks off solid, square, tightly-tied bales hour after hour, day after day. ■ Top-quality bales, too, thanks to gentle, leaf-saving Flow-Action® feeding system. With fewer moving parts and no gear box, Flow-Action promises years of no-trouble service! ■ Need a long-tongue baler? See the new Hayliner 269. ■ New Holland Machine Company Division of Sperry Rand Corporation.

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American Agriculturist, July, 1965



American Agriculturist
and the
RURAL NEW YORKER
FOR THE NORTHEAST FARMER

Volume 162, No. 7

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OUR COVER

It's county fair time across the Northeast! These young fellows... and faithful Rover... are primping their pride of the pasture with the idea of bringing home a blue ribbon. You'll find a list, by states, of fair dates in this issue.



Buy SEVIN® for better insect control...

SEVIN® carbaryl insecticide gives powerful control of 160 different insect pests of 90 different crops. You can use the same spray in many different fields and orchards. SEVIN is effective in cool weather and stays effective through heat and bright sunshine. The long-lasting results with SEVIN give you insect control with a minimum number of applications.

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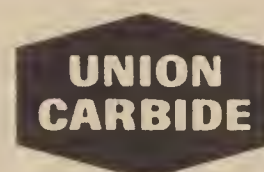
Reduce drift hazards. There is no problem of contamination in pastures, hay and feed crops when you use SEVIN for crop insect control. Residues on livestock feed crops, either from drift or direct application for insect control, do not show up in milk, meat or eggs.

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You are a good neighbor who reduces residue hazards for everyone when you are a good farmer who controls crop insects with SEVIN. See your nearby supplier for the new list of recommended uses. Or write Union Carbide Agricultural Chemicals, 270 Park Ave., New York, N. Y. 10017.



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Curtis Crooks . . .
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Northwestern
New York as . . .**

the man in the Checkerboard tie



The character of our business makes it a human force business. That's why we feel our people and our philosophy of doing business are even more important than our organizational structure and our physical properties.

We have always put great emphasis on the quality of our people, and for more than 70 years it has been our philosophy that we deserve to grow and prosper only so far as our products and services help our customers grow and prosper.

That's why Purina is proud of Curtis Crooks, our man in the Checkerboard tie in the Buffalo area. Curtis knows what it takes to make money with livestock and poultry. For 9 years with Purina, he has made it his business to find out, because, in our business, the customer is "The Boss." We must serve and satisfy him.

Curtis was born and raised on a Pennsylvania dairy farm. He graduated from Penn State with a degree in agriculture and taught agriculture 6 years before joining Purina. Headquartered at Corfy, he works with farmers in Niagara, Erie, Wyoming, Genesee and Orleans Counties. Since joining Purina, Curtis has never stopped learning how to give farmers the kind of advice, service and leadership it takes to make money with livestock and poultry. To this he is dedicated.

Yes, Purina is proud of Curtis Crooks and the part he plays in the growth of the agricultural economy in his area. Like all the men in the Checkerboard tie, he wants to see his customers prosper. These men all have one thing in common—they serve people. And so does Curtis Crooks and the man in the Checkerboard tie in your part of the state.



Typical of the products which come to you through your man in the Checkerboard tie is Purina's new Golden Bulky, built especially to help dairymen get top milk production and improve body condition. It's a great supplement for pasture . . . makes rations more palatable . . . builds dry cow and heifer condition . . . and makes fussy, high producers eat more. Your local Purina salesman is the man to see for further details on this fine new product. Ask him for a 30-day Golden Bulky Test Kit, including a free bucket and record card.

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**PURINA
CHOWS**



EDITORIALS

by GORDON CONKLIN

OF THEE I SING

Numerous people, within and without, are screaming accusations against our United States these days. This nation is called "imperialistic, aggressive, warmongering."

Wonder if it's ever occurred to the leather-lunged ones that the longest national boundary in the world lies between the United States and Canada . . . without a gun on it.

At the close of World War II, the United States had the most powerful military force ever assembled in the history of man . . . and dismantled it.

Since that same war, the United States has given away more than \$100 billion in aid to other nations around the globe . . . including the countries against whom it had just fought.

Our country spent hundreds of millions of dollars developing an atomic bomb with which it could have terrorized and conquered the entire world during those years when it was sole possessor of this cosmic thunderbolt. How would history read had Nazi Germany or Russia . . . or China . . . been first to develop such awesome power?

Man . . . collectively and individually . . . should never become complacent about himself or his society; there is always room for improvement. But, ever since Adam (or maybe it was Eve) first searched the fig tree and chose a leaf, mankind has been making choices. There are no vacuums in the course of human events. A form of government, or any other man-devised system, that is discarded must be replaced by some other way of doing things.

Our founding fathers were wise and practical men. They knew that society's superstructure would need constant modification. But they also knew that basic human nature would not change, so they set up a constitutional government taking into account human weakness as well as human potential.

And, perhaps most important of all, they sensed the empty place in the heart of man which can only be filled by the growth of the spirit. They quoted no Scripture in the ringing words of the Declaration of Independence. But they wove throughout those immortal sentences the threads of deep spiritual convictions, and made it crystal clear that their lives accompanied their words upon the altar of human freedom.

O hot-eyed ones, raise questions about what is . . . only if you have workable alternatives to offer! The world is full of carpers . . . they play no ball; they fight no battles; they make no mistakes because they attempt nothing. Down in the dust and tumult of the arena are the doers who make mistakes because they put their hands to many plows. The very furrows they turn provide your daily bread, and build a nation in which you are allowed to express your rebelliousness to the point of disgusting discourtesy.

O dreamy-eyed ones, who are as yet unbowed by the crushing weight of life's burdens, hold high the banners of idealism. But do so only if you are willing to mingle your blood, and sweat, and tears with the mortar that cements the brick-by-brick erection of the ramparts upon which to plant those banners!

It has ever been that childless people offer the most confident advice about rearing the young. Parents know from experience that noble objectives always beckon from the tops of rugged mountains . . . at the end of narrow

and winding roads bridging bottomless chasms and traversing burning deserts.

O ravenous-eyed ones, who long to bring down our nation so that you can rule its people and ravage its wealth . . . be it known that there are those who will fight to the bitter end against you! Our fathers have passed to us the torch; we are warmed by its promising glow of freedom, and we imperfect mortals are refined in the crucible of its hope. To protect its flame we will die if need be . . . or we will do that which is even more difficult by responding day by day to its demanding heat within our hearts.

Let not the pen of history record that ours was the generation which snuffed out the torch with the damp cloth of complacency or the violent winds of irresponsible criticism! Ours is the legacy of a unique experiment in government of the people, by the people, and for the people. Whether it lives with vigor or dies from neglect, my friend, depends upon all the citizens of our beloved land . . . including you and me.

COOL EGGS

Looks to me as though the Poultry and Egg National Board is on the right track with its theme for summer egg promotion . . . "Cool and Light for Dinner Tonight." This recognizes the facts of life . . . that most people want to be cool and uncaloried at summer meals.

Well-devised promotional material, of course, implies that everyone who eats eggs will be handsome (or beautiful), young (or only prematurely gray), and strictly with the "in" generation. Effective promotion for any product . . . food or otherwise . . . must take into account the results of research concerning the real motivations of people.

VERTICAL INTEGRATION

Vertical integration takes place when any two or more of the component parts of marketing (production, assembly, processing, and distribution) are joined through ownership or contract.

Contract farming continues to increase in agriculture, notably in poultry and meat animal production. Contracts between vegetable growers and processors have long been the rule, as has been the case with a considerable proportion of fruit production.

Some people seem to be awfully hostile to contract farming, but I wonder if some of this hostility is more emotional than practical. After all, most farmers have entered into many written or unwritten contracts . . . with their wives in marriage, with their bankers on loans, with former owners in purchasing their farms, and with employees. Whether spoken or put on paper, business contracts provide a basis for planning on the firm ground of knowing what other people are going to do, when they are going to do it . . . and for how much.

The day is long gone when production and distribution can be separate entities, each going its own way in blithe disregard of the other. Farmers can no longer deliver the quality and quantity that fits their plans re-

gardless of the needs of retail outlets. Contracts can be a handy "transmission box" that meshes the gears all the way from the planting to the plate.

As I review the arguments for and against contract farming, I can only conclude that it will continue to become more important in agriculture. And, if such agreements are drawn with the best interests of both parties in view, then I can only conclude that here is a mighty useful tool with which to take advantage of the opportunities available to the whole complex of agribusiness.

BERRY PICKIN' HANDS

I note that again this year bills were introduced into the New York State Legislature to repeal the "berry-picking" law that permits children between the ages of 12 and 14 to be hired for light farm work. As regularly as the return of spring, the bleeding hearts perform their ritual of seeking to "protect" children from alleged exploitation.

Considering the long-run best interests of the teenagers themselves, I'm convinced we should not impose any further roadblocks along the path of earning some money by honest effort; perhaps we should even remove a few of the ones we've already constructed. We put a forced draft behind our children in schools . . . accelerated programs and all the rest . . . so they will learn fast; then we prevent them from using this crammed-in knowledge and maturity in constructive employment. Is it any wonder some of them are rebellious and become delinquents just to find challenge, to find something difficult to do?

Farm families are fortunate because their children can legally begin at an early age to develop a healthy attitude toward work. It's about the only occupation left where children can take an active part in working for their father, without legal restrictions on hours, hazardous machinery, etc. It's one of the real pluses of farming as a profession, benefitting the family in terms of work force flexibility . . . but benefitting even more the children who learn early the necessity and satisfaction of constructive work.

HOW ABOUT THAT!

By golly, the Russians have come to grips with reality! They are embarking on a new five-year farm program that will hopefully "solve" their farm problem which, unlike ours, is one of underproduction.

Now, a number of our so-called farm experts claim that low prices tend to stimulate production, but the Reds know better than that. Sure enough, their plan calls for raising grain and livestock prices . . . ranging from 10 to 100 percent increases, depending on the item. Grain production quotas will be lowered, and farms will get 50 percent premiums on production above quotas.

In many industries the Soviet Union has recently decentralized control and has introduced the profit motive. By the end of 1965, 25 percent of clothing factories, 28 percent of shoe plants, 18 percent of the textile mills, and 30 percent of the leather manufacturers are scheduled to be shifted to a system whereby sales in the marketplace determine production planning, and profits are based on sales success. Yes, I said profits . . . in the Soviet Union, yet!

Marxist though they be, the Communists are getting the idea that profit is a powerful motivator of human beings. They're also concluding that prices may really be a good method of allocating production resources.

We Americans thought we knew that all along . . . or did we?

MILK SCREENING TESTS

What Significance for the Dairy Farmer?

by Chris Haller*



THE CONSUMING PUBLIC looks upon milk quality as simply a good-tasting glass of milk that is safe for human consumption. The milk-drinking consumer is certain today that his quart of milk is the cleanest and best ever produced. However, it can still be improved.

Sediment testing has brought about the need for correcting milking environmental defects. These corrections have vastly improved sediment tests and have resulted in cleaner milk. The advent of bulk farm tanks or holding vats, equipped with rapid cooling and easy sanitation, reduced the multiplication of bacteria in bulk milk until "bacteria counts" no longer are a reflection of udder health and barn sanitation. What the carefully-applied sediment test has done for barn sanitation, the "screening test" is about to do for udder health.



Christian J. Haller

Screening Test

What is a screening test? The strip pan that should be used to check the milk of each quarter is one. The strainer pad has long been a rather inefficient and belated screening test. However, not all herds apply even these primary aids to determine the general mastitis situation in the cows.

What is necessary to detect these careless and inconsiderate dairymen is a test that can be applied to bulk milk to determine the presence of inflammation... mastitic milk. The dairyman who keeps his abnormal milk home will have no problem; he just raises a few more calves or hogs. The few dairymen who ship this milk are, of course, downgrading the quality of all milk.

About 10 years ago there was no test known that could be used to detect, in bulk, milk from in-

flamed quarters. Bacteria counts and annual herd examinations by veterinarians were the mainstays, and served fairly well. Bulk tank cooling cancelled the efficiency of bacteria counts, and once-a-year examinations by even the most conscientious veterinarians were not sufficient to hold the udder health in herds for a whole year.

The leucocytes, or white blood cells, were known to increase enormously in quarters affected with mastitis, consequently being present in the milk from those quarters. White cell counts could be done by a microscopic test, but they were inaccurate under field conditions, and too time-consuming when done in the laboratory.

WS and CMT

Chemical tests were the answer. The Whiteside (WS) test, the California Mastitis Test (CMT) and the Catalaze Test all were developed to detect the presence of these leucocytes in milk. These tests are now being adopted by the agencies in charge of milk sanitation to detect herds shipping mastitic milk.

What will happen when your herd's milk comes under a "screening test" scrutiny? If you are one of the 90 percent of dairymen who keep obviously abnormal milk home, you will only be benefited by the improved quality and salability of the bottle of milk sold. But don't stop trying. Initially the tests will only be used to detect the real problem herds; eventually they will be improved and the tolerance lowered until they will be a real barometer of udder health. It is hoped that all test results will be followed by the dairyman, so that early warning of increased cell count can be used to correct milking practices.

Generally, test results will be reported as "neg," "trace," "1," "2" and "3". Any result above negative or trace should alarm the dairyman.

What steps should be taken?

A "1" reaction means that a considerable amount of mastitic milk is present. A strip pan examination, in good light, with careful detection of watery or other abnormal secretion and elimination of stripper cows will usually

correct the trouble if this secretion is no longer included. Mastitis quarters may be treated, and the milk held out until it appears normal, not just the 72 hours necessary for antibiotics to be eliminated.

Vacuum lines, the vacuum pump, the milking machine and inflations should be checked. Bulk milk going from "negative" to a "trace" or "1" reaction will often be due to udder irritation from prolonged milking. Worn, flabby inflations, worn or dirty pulsators, inadequate vacuum from an inefficient pump... all are frequent causes of udder and teat stress and prolonged milking times.

Check your herd's milking time! Multiply the number of milker units used by the minutes of total milking time. Then divide this figure by the number of cows milked. The result will be the average milking time per cow. Cows should be milked in an average of 4 or 5 minutes per cow. Average times of 11 or 12 minutes per cow are not uncommon... and these herds are often in trouble with mastitis. Before the mastitis can improve, the milking time must be brought down to at least 6 to 8 minutes.

If you suspect your machine is not operating efficiently, call your milking machine serviceman. If you suspect he is not operating efficiently, the milking machine manufacturer will be willing to listen and see that service is brought up to expectation!

You will probably find that your veterinarian has learned a lot about mastitis since the happy but unfruitful days of mastitis control by quarter treatment only. He should be able to advise you on the need for possible revision of the milking installations, and certainly can check the vacuum at the teat cup to determine if the trouble lies with the machine.

If the trouble is with the man using the milker, try education instead of just firing him.

A few good bulletins are available. The publication put out by the National Mastitis Council is invaluable, and has the added advantage of being the brainchild of

top men in mastitis research all across the country. When experts agree, the product must be good! It is entitled "Current Concepts of Bovine Mastitis" and can be obtained from the National Mastitis Council, 118 West First Street, Hinsdale, Illinois.

Also very good is the California bulletin "Milking Management and Its Relationship to Milk Quality." Write for a copy to Public Service, University Hall, 2200 University Avenue, Berkeley, California.

Cornell Experiment Station Bulletin 996 is a study of milking practices on 195 New York State farms, and the relationship of milking factors on milk production and mastitis. This bulletin seems well worth considering when mastitis or low production is a problem.

"Horrible Example"

Now, what about the "horrible example"... the herd that consistently ships milk with a "2" or "3" screening test reaction? Some thought should be given by these dairymen to the advisability of a nice job in the city, well away from the exacting task of milk production.

If the decision is to stay with the milk business, call a good veterinarian, a good milking machine serviceman, get a hand from the county agent, and join the human race again. There is no excuse for shipping such poor quality milk, and you are obviously unable to handle your problems alone. You are a detriment to the conscientious milk producer, and a threat to the health of the consumer.

These "2" or "3" reaction herds will require considerable culling of badly-affected cows, and a "blitz" treatment of all quarters having obvious mastitis. In addition, the milking installation should be thoroughly checked for malfunction by a competent person, and changes made to provide sound and adequate milking. A herd with a mastitis problem is much more susceptible to udder irritation and resulting flareup and spread of bacteria to sound udders than is a clean herd.

Behind Milkers

The man behind the milkers should be re-educated in milking techniques... and in the detection of abnormal milk. States that offer quarter sample culturing can hasten the cleanup of these herds immensely... if the dairyman realizes the enormity of his problem and will cooperate. His reward will not be long in coming. Milk production jumps in herds where a mastitis problem is brought under control and the latent infection eliminated.

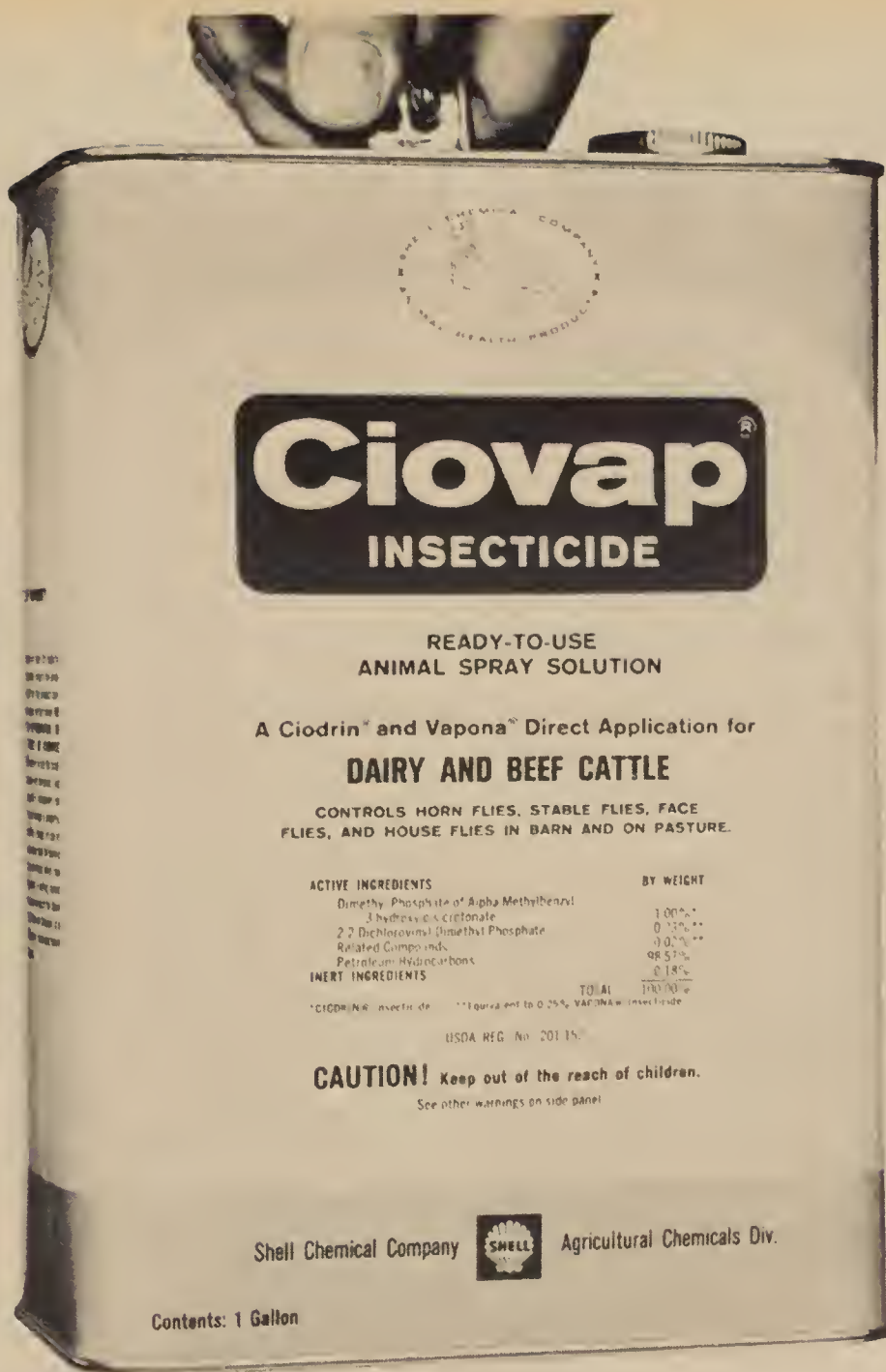
Streptococcus agalactia is the easiest infection to eliminate, yet it causes most of the high screening test reactions. Only when the infection has been eliminated can the dairyman relax and know that the "Sunday" milker won't lower the good milking barrier for Monday morning flareups... and a "2" reaction on the screening test.

American Agriculturist, July, 1965

*Practicing veterinarian at Avon, New York, and chairman of the N.Y.S. Mastitis Council.



Spray with Ciovap and cows are freed from biting, irritating flies for the rest of the day—in the barn and out on pasture.



Look for this remarkable new dairy and beef insecticide in red-and-yellow cans carrying the distinctive Shell emblem. Available in 1- and 5-gallon sizes.



These cows are grazing efficiently, protected by Ciovap. Horn flies, face flies, and stable flies can't interfere with their production.

NEW DAIRY FLY CONTROL

Shell's amazing Ciovap® Insecticide gives you a complete fly control program from a single spray.

CIOVAP controls all major flies all day long—on pasture as well as in the barn. Ciovap is a combination of two Shell insecticides, Ciodrin® and Vapona®, each in itself a unique fly control product. The ratio: 1% Ciodrin and ¼% Vapona. The result: Ciovap gives you more overall fly control than any other product.

How Ciovap works

Ciovap acts three ways, and controls horn flies, face flies, stable flies, and house flies:

1. The Vapona in a Ciovap application gives cows relief as soon as you apply the spray—in barn or holding area.
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3. The Ciodrin part of the Ciovap spray takes over where the Vapona leaves off and keeps the cows protected for the rest of the day.

The staying power of Ciodrin completes the program by stopping the flies

that attack cows on pasture. Animals can spend their time grazing, resting, and making milk—not fighting flies.

Saves time and money

The complete barn and pasture fly control of Ciovap eliminates the need to buy several kinds of fly control chemicals. And you won't have to spend time putting on special face fly treatments or making separate applications for horn fly control. One Ciovap spray gives you a day-long fly control program.

Ciovap won't endanger milk purity when applied according to label directions.

Because Ciovap controls face fly (in addition to horn fly, stable fly and house fly) it helps you keep eye disease problems to a minimum.



Easy application

No mixing. Spray Ciovap just as it comes from the can. Put a maximum of 2 ounces of Ciovap on each animal. Make sure all parts of the body are covered, including belly and legs.

Ciovap is a brand name product of Shell. Ask for it where you normally buy farm chemicals. For more information write Shell Chemical Company, Agricultural Chemicals Division, 2299 Vauxhall Road, Union, New Jersey.

Before using any pesticide always read and carefully follow label directions.



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Mr. and Mrs. Frank L. Walker looking over the farm records.

HE USES HIS RECORDS!

by Hugh Cosline

"IF IT WEREN'T for the records I keep I might have quit farming." That's what dairyman Frank L. Walker of Falconer, New York, told me. He went on to explain:

"We seldom have much money in the bank, but records show, through an increase in our inventory, how much we get ahead each year in net worth. And that isn't all! Records also point out our mistakes, so we can correct them before they get too costly."

Frank "jumped at the chance" to join a farm management group now numbering 31 farmers in Chautauqua County, sponsored by the Extension Service. A summary is given to each member of the group, which provides them with a "yardstick" against which to measure their own businesses. For instance, such farm business items as pounds of milk produced per man, crop yields per acre, selected costs per cow, etc. are calculated for each farm, and then the summary presents the average for the entire group. In this way each member can compare his business with the over-all average without exposing the details of his business to anyone else unless he chooses to do so.

Sharing Experiences

Meetings of the group allow the sharing of experiences, and help each member to think through some of the possibilities for better management of his own farm.

"For example," said Frank, "we were spending too high a percentage of our milk check for feed. We did something about that, not by growing more feed (home-grown feed costs money, too) but by better buying. We built some storage space and bought feed (sometimes corn) by the carload. We have a custom grinder come once a week to grind and mix a ration for the cows."

More recently Frank participated in an electronic system of record-keeping called "Elfac." "I always wanted to know more about my business," he said. "Now Mrs. Walker, who keeps the farm records, fills out a fact sheet and sends one in every Tuesday. The figures are transferred to IBM cards, and once a month

back comes a detailed analysis of the business, followed four times a year by a quarterly analysis which really pinpoints the strong spots . . . and, more important, the weak ones."

Frank also uses another piece of information worth mentioning. Each month the DHIC tester leaves a sheet showing the production and feed consumption of each cow.

"A report (analysis) comes back in about ten days," says Frank. "But by studying the figures immediately I make some feeding changes right away. By not waiting, I get a ten-day start . . . and even if I save only 25 pounds of feed a day, it pays off. I'm sure that I used to feed cows too heavily in the last stages of lactation, while at the same time heavy producers recently fresh were being underfed."

Equipment Costs

By comparing his records with the average of other farmers, Frank concluded that his equipment cost per cow was too high. His method of correcting this was to buy another farm about five miles away . . . with enough barn room so another man can handle another milking herd.

According to Frank, this way of expanding has both advantages and disadvantages. It made an addition to the barn on the home place unnecessary, and it makes for flexibility. A change can be tried out on one farm without involving the entire herd. The big advantage is that the equipment cost spread over more cows reduces the cost per cow.

This is a purebred Holstein herd of around 100 producers on the two farms, with all the good heifers being raised. When the second farm was purchased it had a grade herd. About half were culled and replaced from the home herd. Incidentally, hanging on the wall in the Walker home is a "Progressive Breeder" plaque awarded by the Holstein-Friesian Association for the years 1961 to 1964 inclusive.

Although Frank, after careful study, expanded his business, he by no means considers a bigger

dairy the chief answer to the problem of dairymen. When I visited the farm in early April he and the children were caring for the herd.

"Actually," he said, "on the home farm we have too many cows for one man, and not enough for two. I am thinking seriously of cutting down a little by selling a few cows."

That shouldn't be difficult. Surplus stock has been sold for several years, and there's always a demand for the quality of cows found on this farm. Frank also has a strong feeling that farmers should produce for the market, in other words, sell before you produce. "What's the use of producing more and more" asked Frank, "if the result is to beat the price per unit lower and lower?"

Gets Premium

Along with some other dairymen in the area he gets a premium for milk because he plans to produce a given amount of milk each year with very little variation from month to month.

"This herd was close to the top in production in the county for several years," said Frank. "It's not so close now, and I am somewhat concerned, but not too much. One reason for the drop was moving a number of cows to the new farm. I believe in high production, but not necessarily in pushing a cow to her absolute maximum. However, we do expect the herd average to be higher than it is now."

I mentioned that the family helps with the chores. The next generation of Walkers is made up of three boys and two girls. The four older ones, ranging in age from 14 to 8, own calves and belong to a 4-H club. Dad gives each the first calf; if any of them want another calf, there is a stated price for it and for having it raised. When a heifer comes into production, the owner gets a milk check. In addition, each boy and girl gets a wage for work done on the farm.

"When they go to college," said Frank, "I expect they will be able to pay their own way!"

Whether they do or not, you can bet they'll know the value of a dollar.

You may be interested in how Frank handles his young stock. You might call it "mass production." They are split into four groups, each group in a pen. Young calves are together until they are around four months old, then moved to the next group until about eight months. The next pen has heifers up to breeding age, and the final one has the bred heifers.

"I am planning to put up another silo some distance away from the barn," said Frank, "and develop a heifer-growing building where I can save labor by mechanized feeding."

You would enjoy visiting the Walker farm. They're mighty friendly. I can tell you one thing, if you do visit the farm and talk with Frank you'll come away with a conviction that records and the study of records is an indispensable part of good farming!



Grand Canyon and Lower Falls of Yellowstone River, as seen from Artist's Point in Yellowstone National Park.

LAST CALL!

JUST ABOUT six weeks from now a happy party of American Agriculturist travelers will head west to Chicago for the start of a wonderful tour that will take them to the most beautiful and fascinating places in the Pacific Northwest. The dates are August 14 to 29, and you'll visit places you have always longed to see — the Black Hills and Mount Rushmore, Denver and Salt Lake City, the Feather River Canyon train route through the high Sierras, San Francisco, the Redwood Empire, Crater Lake, Mount Rainier, and Yellowstone Park.

Your ticket for this tour includes everything — escort service, all transportation, meals, hotels, baggage transfer, sightseeing, and tips. You'll have absolutely nothing to do but enjoy yourself.

For more information, write for a free copy of the itinerary, using the convenient coupon below. The itinerary tells just where we will go every day of the tour and pictures many of the places we will visit. It also gives the exact cost of the all-expense ticket. Since space for this exceptionally fine tour is limited and time is getting short, we urge you to not delay in writing us.

Mr. Gordon Conklin, Editor
American Agriculturist
P. O. Box 367-T
Ithaca, New York

Please send me, without obligation on my part, your Northwest Holiday Tour itinerary.

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(Please print)

New Idea challenges any other corn picker to pick as clean, as fast, as plug-free as the new Superpickers . . . in any stand of corn!

Bold words? They're meant to be! And Superpicker can back 'em up with what it takes . . . where it counts!

This machine is built to outperform all the others in any corn, straight and tall or down and tangled. Superpicker's big, hungry gathering unit picks clean, keeps ears moving fast even in biggest yields, and delivers corn exactly the way you want it.

You can tailor a Superpicker combination to pick and husk . . . pick and shell . . . or pick and grind *on the move* in the field. And switching from one to another is a quick, one-man job.

New Idea is always improving its big choice of interchangeable field-going processing units, too.

This year, all Superpicker husking units have exclusive *Flexi-Finger* presser

wheels as standard equipment! These hundreds of life-like rubber fingers align ears better on the husking rolls, keep them moving along so husking capacity matches the non-stop gathering capacity up front!

To match this big capacity you can get giant 12-roll husking beds on any of four Superpickers!

We'll say it again. Harvest ear corn, shelled corn or ground ear corn with the non-stop performance you need for the fastest, cleanest, most profitable corn harvesting.

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See it at your New Idea dealer's before you start this year's corn harvest. Find out for yourself what makes this one live up to its name . . . Superpicker. From New Idea, Coldwater, Ohio.

There are pull-type, mounted and Uni-System self-propelled Superpickers . . . Superpickers to snap, to pick-and-husk, to pick-and-shell, to pick-and-grind . . . 1-row, 2-row narrow, 2-row standard . . . all Superpickers. The choice is yours!



PULL-TYPE SUPERPICKERS. 1-row, 2-row for standard rows, 2-row for narrow rows. All 2-row pulls offer interchangeable husking beds, shellers, grinders.



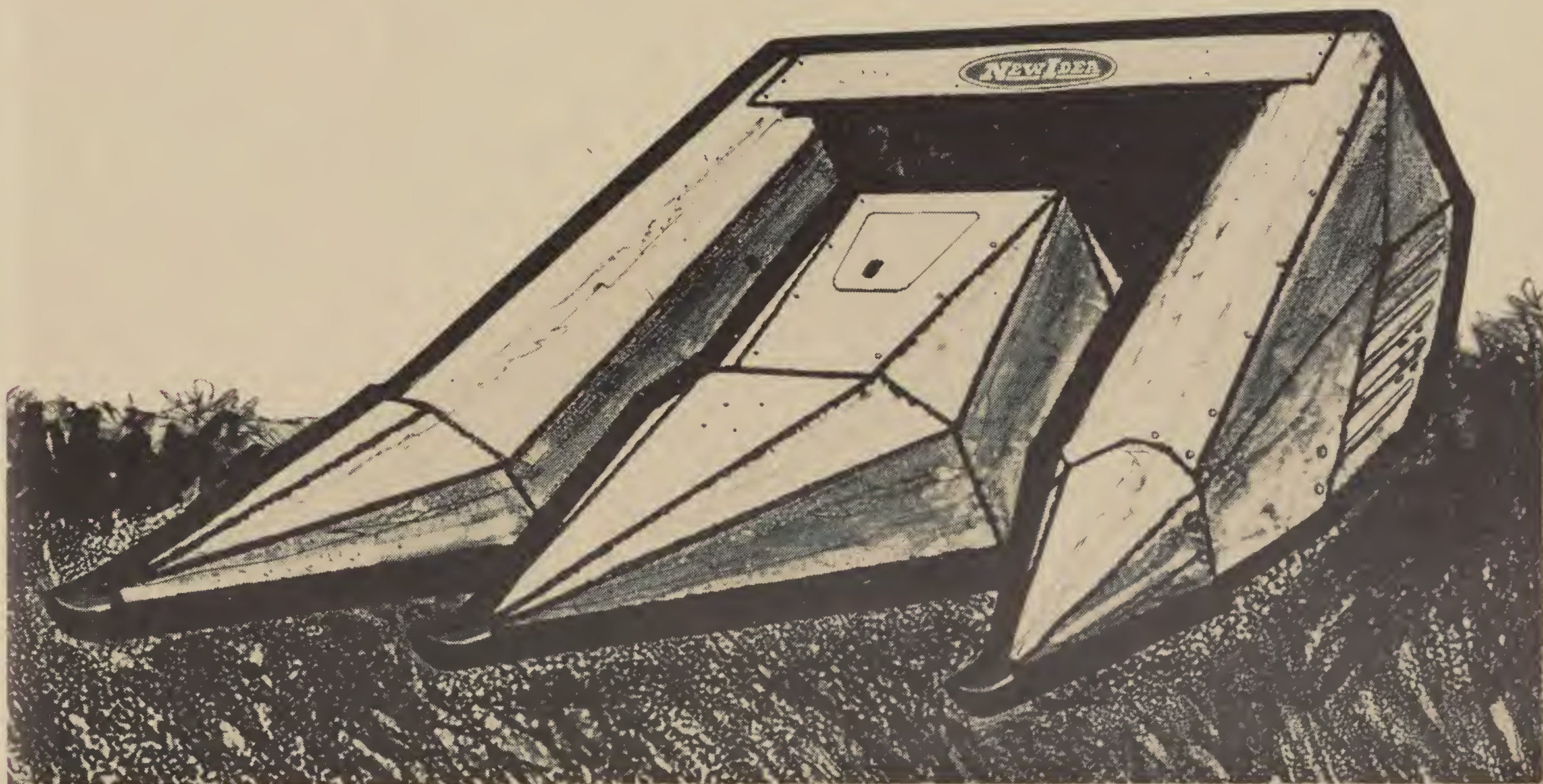
MOUNTED SUPERPICKER fits any tractor. Interchangeable processing units let you snap . . . pick 'n husk . . . pick 'n shell . . . or pick 'n grind in the field.



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A bold new challenge from Superpicker!



I plan to spray my pasture with a combination of 2,4-D and 2,4,5-T. Will it be harmful to animals?

The combination of 2,4-D and 2,4,5-T is an effective treatment for the control of broadleaved weeds and woody plants. It is most effective on broadleaved weeds when they are in the vegetative stage and actively growing. The woody plants should be in full leaf when sprayed.

The clearance regulations approved by USDA and Food and Drug Administration require a seven day interval between application of the chemical and the grazing of milking cows or beef animals being finished for slaughter.

There is always the possibility

that animals might eat vegetation treated with these herbicides which they otherwise would not normally eat. Such vegetation could be poisonous plants or the dried leaves

week delay in grazing is a safety precaution and not a regulation specified for the permissible use of the 2,4-D + 2,4,5-T combination. Where it is known that poisonous

The Question Box

... Send us your questions - we'll get the answers

of chokecherry or wild cherry.

In view of this possibility, it seems desirable to keep livestock off treated areas for about three weeks after treatment. This three-

plants do not exist, the seven day interval must be adhered to for milking cows or beef animals being finished for slaughter.

— S. N. Fertig, Cornell University

Here's the greatest advance in worm control in many years! Containing the first commercial microbial crop insecticide - it's **THURICIDE® 90TS***

THURICIDE 90TS FLOWABLE is a liquid which contains bacterial spores of *Bacillus thuringiensis*. It singles out and destroys only the leaf-chewing larvae of certain lepidopterous insects (caterpillars, loopers and hornworms). And THURICIDE is harmless to everything else, including man!

Because of its safety, you can use THURICIDE 90TS right up to harvest! There is no residue tolerance requirement on a number of food and forage crops!

THURICIDE 90TS is ideal for the control of imported cabbage worm and cabbage looper in lettuce, cole crops and other vegetables; of hornworm in tobacco and tomatoes; even gypsy moth, cankerworm and linden looper on forest trees and ornamentals.

How it works: THURICIDE's active ingredient, spores of *Bacillus thuringiensis*, is eaten by the worm. The worm stops feeding almost immediately, dies and dries up within 72 hours.

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GROW WITH STAUFFER CHEMICALS



Stauffer
CHEMICALS

Are there chemicals that will control woodchucks?

There are no chemical sprays that will remove woodchucks from an area. The most successful control has been through the use of traps, shooting, or gassing the dens. The gas cartridge (so-called "bomb") is probably the most convenient to use.

Dissatisfaction with the use of the gas cartridge usually stems from the fact that woodchucks move around a great deal and soon move in to take over vacated burrows. Thus it is necessary to treat burrows several times during the season in order to eliminate those animals that replace the original inhabitants.

Crops such as beans may be protected from woodchucks to some degree by the use of the deer repellents "Goodrite ZIP," "Tat-go Deer Repellent," or "Protexem Deer Repellent." These are taste repellents, and new foliage must be resprayed at intervals as it appears. Sometimes a crop field may be protected by spraying only a 25 to 50-foot border strip.

— W. Robert Eadie, Cornell University

I have to transport manure from my dairy over a road and was fined recently for spilling some on the road. What can I do?

We are finding that this is becoming more and more of a problem throughout the State, and there is no question at all but what they can fine you for this, because in the first place this would be classified as a "litterbug" if you allow anything to be spilled on the highway. Usually this does not go this far, however, as warnings are usually given before a fine is levied.

We have had some instances in the southeastern part of New York State where farmers have had to go out and clean up the material on the road and then lime the area after spilling manure, but as far as I know none of them was fined.

About the only suggestion that I would have to alleviate this situation would be to take a little more care in not loading quite so heavily, and making sure that none of the material can dribble out. We have had several operations in the State that have had to go to tank-type spreaders that are completely closed where they have to haul over the highway for any distance.

— Charles E. Ostrander, Cornell University

FLETCHER 4-H'R
© JOE E. BURESCH



"Our hired man can't work since his accident. Compensation's set in."

American Agriculturist, July, 1965

Personal Farm Experience

ROUGHAGE FEEDING

We raise all of our roughage and currently raise only enough hay for our young stock. This past year we switched from a hay and corn silage program to a low-moisture silage (haylage) and corn silage program. Our milking herd is fed just haylage and corn silage . . . 80 pounds per cow per day, about 50 percent of each . . . and grain. Under this system, we feel that we can cut our forage when it should be cut . . . early . . . and not have as great field losses as with hay. By handling the forage crops this way, we can step up yields per acre as well as improving the quality of feed.

Another reason for switching to an all-silage program is that we can mechanize all of our operations. The whole silage-making operation has been successfully mechanized in the field, at the silo, and in feeding.

The herd, mostly purebred, of 83 cows averaged 14,618 milk and 579 fat last year. We are enlarging our herd to 120 cows, have installed a free stall system and herringbone milking parlor and a silo . . . 30½ x 50 feet . . . holds 1,300 tons of normal moisture silage. — *Robert Chapin, Sheffield, Massachusetts*

DAIRY BARN

We own 128 acres and rent about the same number, have 81 cows in our free stall barn with 94 stalls. The last 12 months' DHIC records show a herd average of 13,320 pounds per cow.

We feed both corn silage and hay on a free-choice basis, have noted that when we restrict corn silage and feed more hay cows drop off in milk. There are two silos 20 x 50 and another 14 x 50; each has an unloader. Silage yields averaged 20 tons per acre in '64, was cut at early dent stage.

Silage is fed in an auger-equipped bunk four times per day; we think this timing stimulates cows to eat more. Hay is fed in a hay rack to the tune of about 30 bales per day, each bale weighing about 30 pounds. We have a cold-air mow dryer to give us better-quality hay.

Pelleted grain drops without flowing problems to the milking parlor from overhead bulk storage; we sell all our home-grown grain (oats and corn).

One silo is filled with hay-crop silage in the spring for summer feeding; greenchop is also used some to supplement stored material. Then everything is filled up with corn in the fall; in 1964 we had 10 acres of corn left to pick. We sometimes mix corn silage and haycrop silage in the same feeding; one auger handles material from all 3 silos to the feed bunk auger.

The past winter was our third using free stalls; we think our cows *American Agriculturist, July, 1965*

have been healthier since switching from stanchions.

Stall partitions are made with one 2 x 6 at the top and a 2 x 2 at the bottom. They are 7 feet wide, have a curb at the rear that is 6 inches wide and 9 inches high. Manure is scraped from the feeding, holding, and free stall area onto a ramp and dropped into the spreader.

Only two or three cows gave us any problem using the stalls, but we'd recommend shifting from conventional stabling in November

or December. Some cows will find it comfortable to lie down on the paved area in the summer, but if the change is made during the winter, they'll never get that bad habit because they'll head for the bedded stalls instead of cold concrete! We use whole (not chopped) straw for bedding.

About half of our replacements have been purchased as bred heifers over the last few years, the other half are home-grown. There is a lot of time and labor required in growing replacements, but I still prefer growing them . . . expanding the herd has made it impossible to raise them all here, though.

We produced a little over a million pounds of milk last year with

no regular hired help, but we have the help of two teen-age boys at home, and a twenty-year-old who is home from college during the summer. Our farm was one of the first "All-Electric" farms in this area (in 1957); since then we have expanded the use of electric power even more. Carl Jeerings of the Rochester Gas and Electric Company tells us that we are using about 88,700 horsepower hours a year, including house heat.

Since we are so dependent on electricity to feed roughage, to milk, to heat, and to cool milk, we're exploring an auxiliary power unit operated from a tractor pto. — *Robert Nortier, Macedon, New York*



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Now you can get this beautiful 5-piece place setting of contemporary "Bright Stream" pattern tableware — a retail value of at least \$4.00 for only \$2.00 — *each time* you buy a carton of Johnson & Johnson Milk Filters. The setting includes salad fork, dinner fork, knife, soup spoon and teaspoon, all in handsome, durable stainless steel and ebony plastic. Any home would be graced by this corrosion-resistant, dishwasher-safe "Bright Stream" tableware that will provide years of beautiful service. And you can later add gorgeous companion pieces such as ice tea spoons, steak knives, serving sets and others.

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Enclosed find \$2.00 and 1 front lid flap from a carton of Johnson & Johnson Milk Filters. (No cash or stamps, please.) Please send my place setting of "Bright Stream" tableware.

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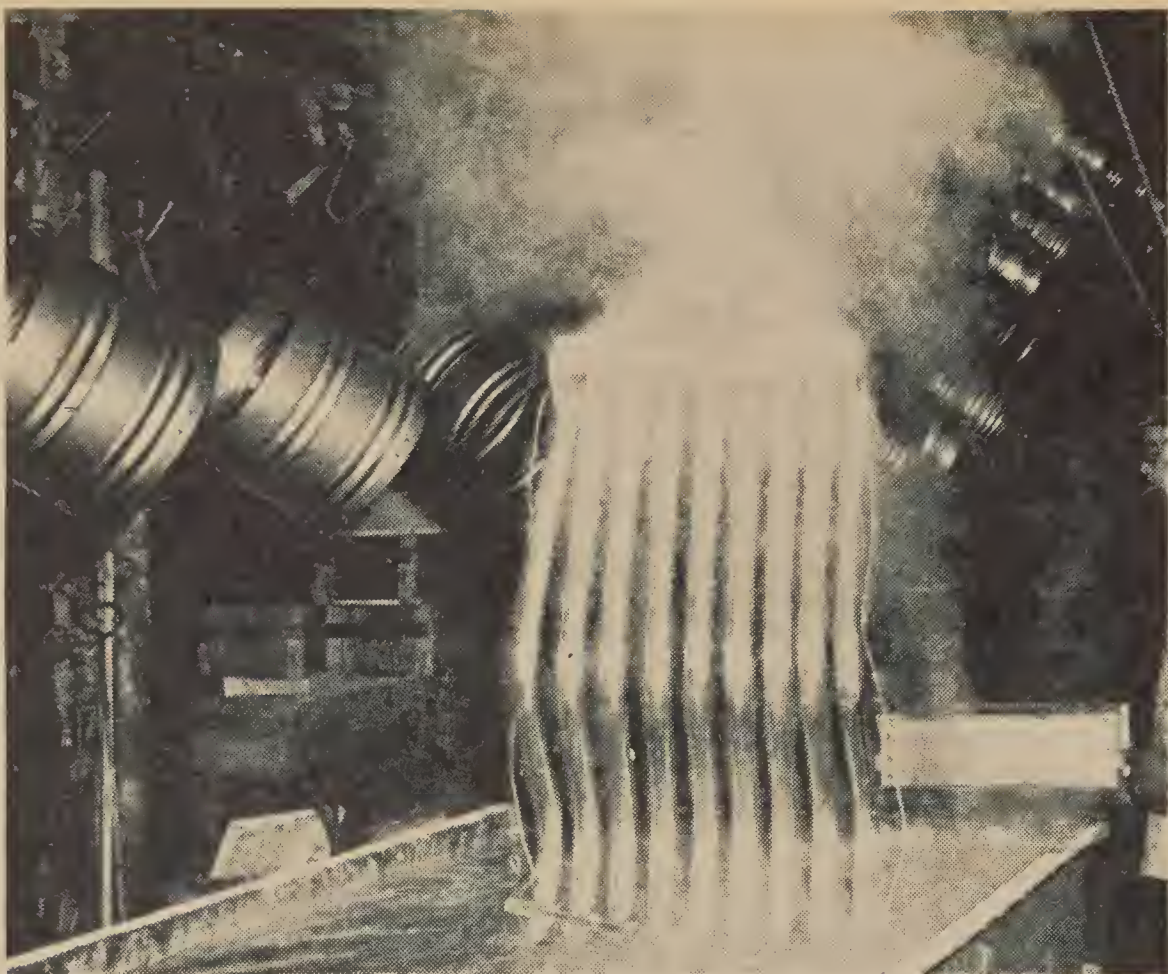
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Gayway Farm Notes

by HAROLD HAWLEY

A BETTER MOUSETRAP?

Over the years, one of the time-consuming, low-pay jobs on any livestock farm has been the disposal of the manure. I say disposal, because with the advent of relatively cheap commercial fertilizers many of us have concluded that manure is hardly worth the cost of hauling and spreading it.

By this, I simply mean that the same number of units of plant food can be bought in a bag or in bulk for about what it costs to spread that number of units of plant food with a manurespreader. There used to be a big cry that the organic matter from a heavy application of manure was also a big item in increasing the value of the manure. Plowing under a good legume sod or a green manure crop is hard to beat, and can be done without the packing and rutting which has all too often been a necessary part of daily manure-spreading on a dairy farm.

The simplest liquid manure-handling setup I have yet seen was and is in Venezuela — a few miles south of Caracas. In this mountainous area of high rainfall and high temperatures, a dairyman whose name I have forgotten has a big pond on the hill above his barn. The whole slope above it drains to it, so he has unlimited water. He houses his cows year around in a tile-roofed barn with no sides. Water is piped from the pond into the gutter at one end of the barn. There is enough slope so it flows the length of the barn, then through a cross gutter which slopes to the gutter behind the next line of cows, hence down that gutter to the end. The gutters are so

built that water flows from end to end and across the barn to keep the manure all flushed from behind four lines of cows.

His crop land lies in a valley below the barn to which this manure-laden water flows in a main ditch, and then in a series of laterals which can be opened or closed to direct the water to the area where wanted. Of course, the manure settles out in the laterals, from which it is spread by hand.

Simplifies Job

Our substitute for this simple system is more expensive and complicated but gets the job done. I'm not sure whether it gets around the big objection of cost of handling manure, but it does simplify and speed up the job.

Manure is trampled through the steel slats to mix with water in the pits underneath and to accumulate for a spell. It can, therefore, be hauled when the ground is firm, the weather at least fit to be out in, and when there is a place to spread it where it is most valuable, rather than just some place to get rid of it.

At any rate, when we are ready to haul manure the pump is turned on to agitate the mess. It merely pumps it in one side and blasts it out the other side of a big centrifugal pump set right in the pit. After the pumping, churning action goes on for a few minutes so a slurry is obtained, a lever is changed on the pump, the material is discharged through a 5 inch delivery pipe and into a tank spreader.

We started out using a 750-gallon tank with an auger the length of it in the bottom and a

(Continued on page 13)

The Song of the Lazy Farmer



Mirandy says she's mortified 'cause I have got my hammock tied right out in front where folks can see that I'm old-fashioned as can be. It's bad

enough, she says, to lay out there in public all the day, without insisting that I cling to that old mid-Victorian swing. It's little wonder, says my spouse, that I'm so often prone to grouse about the aching in my back, she wonders why it doesn't crack. She pesters me to let her buy a canvas chair for me to try; she claims that she might tolerate my loafing if 'twas up-to-date.

But I don't care what experts say or what slick magazines portray; no gadget yet devised by man will rest you like a hammock can. You float on air beneath the trees and sway so gently in the breeze; it's better than a feather bed, more like a fluffy cloud instead; if it don't curve exactly right, you loosen ropes or make 'em tight until your sacroiliac has just the right amount of slack. Those chairs Mirandy talks about look fancier, without a doubt; but beauty doesn't mean a thing when you are seeking rest, by jing.

American Agriculturist, July, 1965

Gayway farm notes

(Continued from page 12)

PTO-driven spinner in the back to scatter the stuff. Loading took 29 seconds (we didn't know it was going to take only 29 seconds the first load!) and spreading can be about as fast as you want it to be in about a 16-foot swath. An unbelievable amount of material can be moved in a day with this combination if the field is close.

I might add that there is an unbelievable amount of stuff to move if there is a 3 to 4-month accumulation from a sizable bunch of cows. For this reason, and because our land is spread out pretty badly, we are currently trying to get set up with a much larger tank mounted on a truck so we can speed up the job.

One of the facts of life about all this is that the investment in a pump and spreader still doesn't let us get along without owning a regular honey wagon. Calf pens to be cleaned still require conventional equipment here.

Nothing New

There seems to be a big surge in interest in liquid manure-handling on dairy farms. Like most everything else new, this really isn't new. For years many European farmers have had one version or another. We have to learn to apply their knowledge and experience to our conditions, and to weigh the advantages and disadvantages and costs of a liquid manure system compared to other ways.

I get a little impatient with some promoters who are out to revolutionize the manure-handling business before enough facts are known to justify some of their statements. As far as we have gone, we like it — but we haven't gone through a summer . . . and we've not yet figured in all the costs (both cash and labor). This is just my usual conservative way of saying I think this may be a real break-through in terms of cutting the costs and disagreeableness of handling manure, but let's not get carried away until more of the answers are in. We will soon know as more experience is gained by the many people who are handling their disposal problems this way.

Incidentally, our set-up is experimental and our approval is tentative until the health department people have had an opportunity to watch and study this for a spell. They have been most cooperative, but understandably

want to be sure there aren't some undesirable aspects to liquid manure-handling before they give permanent approval. Anyone all hot to install a new system would be smart to check with his health officials before he gets too far along with his plans.

HAPPY DAY

Ere you read this, Graduation Day will have come and gone for thousands of young folks across the land. At whatever level, high school or college, our young folks will have received some good training which, if they will build on it, will be of much benefit. If we could only stress the need for

continued and continuous training and learning for all of them and all of us! The real tragedy in most lives is the low aim and low objectives relative to the potential inherent in each of us.

I started to say that this year's graduation was particularly meaningful to me. Our school board rotates its presidency each year so that the man finishing his five-year term is president. Thus, it fell to me to have the privilege of passing out the diplomas to our Seniors. Generally speaking, being on the school board is about as thankless a job as one can seek, but I must say that it is a richly-rewarding experience briefly to cross paths with some seventy

young people in their moment of glory. Some of these youngsters will avail themselves of that priceless legacy which is theirs as free Americans in a competitive society. They will dream big . . . and make those dreams come true.

The other big graduation event for us was for our son Bruce to receive his degree from Cornell University. This in itself would be reason for joy, but it has additional significance. He will join us in a partnership arrangement . . . something we have all looked forward to for some time. Working out an equitable partnership agreement will be part of our job this summer. We will be commenting further as we move ahead on this.



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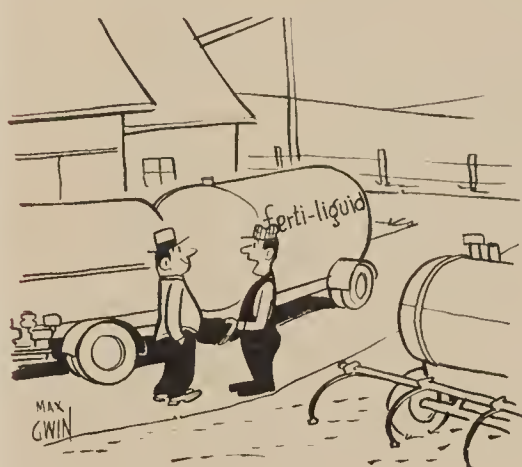
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American Agriculturist, July, 1965



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A Farmer Looks at

HIS COUNTRY AND HIS GOVERNMENT

by Raymond Aasen*

I AM NOT sure if all my neighbors do the same, but as I am doing chores, plowing or working the fields, I find much opportunity for serious thinking. A friend made me aware of this aspect of farm life recently. I would like to relay to you some thoughts I have had about our great country and the great institution of government that has guided the Nation out of the past through the present, and shows promise of moving us into a greater future.

I was born in New York, and as a young boy was taken to Norway. I was then reared as a foreign boy, growing up with a foreign language and a foreign culture. My observation of America then was as an outsider looking in. What I saw and learned about the United States in my early childhood from abroad was that it was quite a bit like Norway; it was free and it was beautiful. I also learned that it was militarily powerful, and I am sure history would have taken a very serious turn for the worse if it had not been for the intervention of the United States in the breakdown of the Nazi Empire.

Nazi Oppression

After living under German-Nazi oppression for five years (from 1940 to 1945) I know how wonderful it is to regain liberty. During the German occupation of Norway, it became routine to see the hated Gestapo (German Secret Police) drive around in town and city, arresting prominent citizens, not for criminal offenses against the State, but for having worthy convictions, true values, and a

conscience. Fear was apparent on the faces of most Norwegians during those times, and most conversations were whispered to avoid being overheard by the Gestapo or their loyal informers.

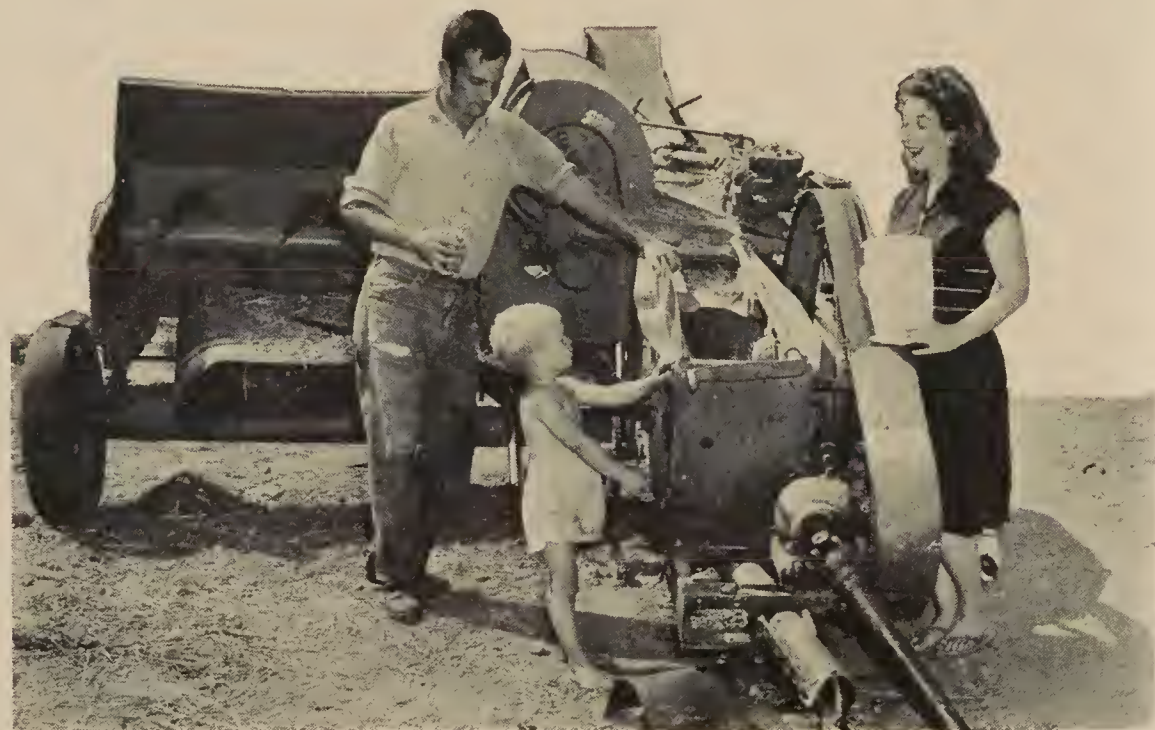
During this same period, the occupational authorities ordered the Norwegian Teachers Association to cooperate in the indoctrination of Norwegian children to Nazism. The teachers ardently refused any cooperation with the Nazi High Command, and consequently suffered an uncertain future. Many teachers were taken prisoner and shipped to German concentration camps, where many of them died from disease, starvation, or were executed.

I have always admired the Norwegian teachers' stand in facing a great threat to their personal security. They had the courage to act according to their best values, and according to their conscience. It is because I have lived under a regime that offered no liberty to the citizens that I have learned to cherish the American way of life.

In my adolescence, I began to aspire to return to America. Under American law, I was automatically a full-fledged American citizen by birth. I arrived in America broke, unable to speak English, but full of youthful enthusiasm and great expectations. Since then, I have received a moderate education, and have become accustomed to the American way of life, the privilege of owning property, and the opportunity to make enough profit to support a family very comfortably.

Because of these personal experiences, I have not faltered in

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Raymond Aasen takes time to share a milk break with his wife and son.

American Agriculturist, July, 1965

my admiration of this Country. Ever since I landed in America, I have heard despicable accusations against its Government. Some people complain because they think the Government should provide a full life, including a living. Others blame the Government for all that is wrong at home and abroad, especially at election time. After listening to such outbursts of criticism and cynicism, I started to form my own conclusions. The first ideas that came to my mind were:

1. What are, or should be, the functions of the Federal Government?

2. Where do we find the answers?

As I understand it, the Constitution divided the government into three different branches and delegated to each certain responsibilities; one with executive powers, one as lawmaker, and the third to deal with justice. In simpler terms it has been said that the main responsibility of the federal, state and local governments lies in providing protection under the law, providing equal justice, and providing for the general welfare of the people of the United States.

I like to believe that the federal Government's responsibility since the Nation's birth through each successive administration of Federalist, Whig, Democrat, and Republican has aimed at fulfilling

Thomas Jefferson's statement in the Declaration of Independence that promises to the new American Nation "certain unalienable Rights; that among these are Life, Liberty and the pursuit of Happiness. That to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed."

The Government must take the proper course of action that promises to fulfill these unalienable rights in a constantly-changing environment. As the new Nation came into being, through its trials and tribulations, and the war between the States, it provided favorable growing conditions for carrying out an industrial revolution, and for absorbing the great

influx of diverse peoples from all over the world.

Grand Design

I am sure it is because of the grand design of our Government that America has been able to adapt itself to the changing needs of its people; through peaceful politics which guide and control the direction of our Government.

I like to think of this Nation as a ship on the ocean. The Government is like a navigator, and our free enterprise system represents the power which drives the ship through the ocean of time and history.

As you look around the world you see the terrible setbacks nations suffer, because the only way

they can change the "status quo" is by bloody revolutions.

Businesses and economies thrive on political and social stability, and even after taxation the business community in this country has much to be thankful for. Profits, of course, depend on a national stability for a long period of time. If the Federal Government could not provide these good prospects, there would be little profit and small abundance in goods and services.

Recognizing that America offers much liberty to its citizens, and a high degree of opportunity for material and spiritual abundance, I believe that in the United States there is much to meet the aspirations of men.

Dates to Remember

July 8 - Canton Show and Field Day, Brown Swiss Breeders Eastern New York, Stuyvesant Plaza Shopping Center, Albany, N.Y.

July 11 - Eastern New York Dairy Goat Show, Schaghticoke Fair Grounds, N.Y.

July 13-14 - Poultrymen's Get-Together, Cornell University, Ithaca, N.Y.

July 24-31 - Delaware State Fair.

July 25 - New York Flying Farmers meeting, Old Forge, N.Y.

July 25-31 - Farm Safety Week.

July 27-28 - Forage Field Day, W. H. Miner Institute, Chazy, N.Y., sponsored by County Extension Service of Northern New York.

July 30-August 1 - Annual Reunion Pioneer Gas Engine Association, Inc., Mendon Pioneer Museum, Honeoye Falls, N.Y.

July 31 - New York State Sheep Improvement Projects Stud Ram and Ewe Show and Sale, Cornell University, Ithaca, N.Y.

August 5-6 - Forage Forum sponsored by New England Green Pastures, University of Massachusetts, Amherst.

August 9-10 - New York State Horticultural Society Summer Tour to Virginia and West Virginia.

August 11-12 - Potato Field Days and Machinery Handling Exhibition, farms of Paul McCormick and William Gozelski, Route 78, Gainesville, N.Y.



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News and Views from
NEW YORK AND PENNSYLVANIA

1965 FAIR DATES

Information Supplied by State
Departments of Agriculture

NEW YORK

Trumansburg	July 6-10
Yates Co., Penn Yan	July 7-11
Tioga Co., Owego	July 11-17
Genesee Co., Batavia	July 12-17
Ontario Co., Canandaigua	July 12-17
Onondaga Co. Youth,	
Syracuse — Horse Show	July 17-18
" " 4-H	July 31
Afton, Afton	July 18-24
Hemlock Lake, Hemlock	July 20-24
Brookfield-Madison Co.,	
Brookfield	July 20-24
Chautauqua Co., Dunkirk	July 26-31
Lewis Co., Lowville	July 26-31

Saratoga Co., Ballston Spa	July 26-31
Seneca Co., Waterloo	July 26-31
Clinton Co., Plattsburg	July 30-Aug. 5
Broome Co., Whitney Pt.	Aug. 1-7
Cortland Co. Youth, Cortland	Aug. 1-7
Jefferson Co., Watertown	Aug. 1-7
Boonville-Oneida Co.,	
Boonville	Aug. 2-7
Orleans Co. Youth, Albion	Aug. 4-7
Otsego Co., Morris	Aug. 2-7
Orange Co., Middletown	Aug. 7-14
Chenango Co., Norwich	Aug. 9-14
Oswego Co., Sandy Creek	Aug. 9-14
St. Lawrence Co., Gouverneur	Aug. 9-14
Niagara Co. Youth, Lockport	Aug. 9-12
Tompkins Co., Ithaca	Aug. 9-14
Allegany Co., Angelica	Aug. 10-14
Caledonia, Caledonia	Aug. 10-14
Greene Co. Youth, Durham	Aug. 11-13
Rockland Co. Youth,	
Stony Point	Aug. 13-15
Cayuga Co. Youth, Auburn	Aug. 14-17
Chemung Co., Horseheads	Aug. 15-21

Albany, Schenectady,	
Greene Co., Altamont	Aug. 16-21
Delaware Co., Walton	Aug. 16-21
Cattaraugus Co., Little	
Valley	Aug. 16-21
Monroe Co., Henrietta	Aug. 16-21
Schenectady, Altamont	Aug. 16-21
Palmyra, Palmyra	Aug. 16-21
Essex Co., Westport	Aug. 17-21
Herkimer Co., Frankfort	Aug. 18-21
Ulster Co., Kingston	Aug. 18-19
Sullivan Co. Youth,	
Grahamsville	Aug. 20-21
Warren Co. Youth,	
North Creek	Aug. 20-22
Erie Co., Hamburg	Aug. 21-28
Wyoming Co., Pike	Aug. 23-28
Franklin Co., Malone	Aug. 23-29
Dutchess Co., Rhinebeck	Aug. 24-29
Steuben Co., Bath	Aug. 24-29
Washington Co., Greenwich	Aug. 24-28
Cobleskill, Cobleskill	Aug. 25-29
Nassau Co., Westbury	Aug. 27-Sept. 6
Montgomery Co., Fonda	Sept. 1-6
Rensselaer Co., Schaghticoke	Sept. 2-7
Agr. & Lib. Arts of Rensselaer	
Co., Schaghticoke	Sept. 2-7
Columbia Co., Chatham	Sept. 3-6

Genesee Valley Breeders,	
Avon	Sept. 4-5
Dundee, Dundee	Sept. 8-11
New York State Exposition,	
Syracuse	Aug. 31-Sept. 6

PENNSYLVANIA

Name of Fair	Date
Kimberton Fair, Kimberton	July 21-31
Butler Fair, Prospect	July 26-31
Community Fair, Shippens-	
burg	July 26-31
Troy Free Fair, Troy	July 27-31
Lebanon Co. 4-H Fair,	
Annville	Aug. 2-4
Great Bedford Fair, Bedford	Aug. 2-7
Goshen County Fair,	
West Chester	Aug. 2-7
Clearfield Co. Fair,	
Clearfield	Aug. 2-7
Fayette Co. Fair,	
Uniontown	Aug. 2-7
Jacktown Fair, Wind Ridge	Aug. 2-7
Lycoming Co. Fair,	
Hughesville	Aug. 2-7
The Great Dallastown Fair,	
Dallastown	Aug. 2-8
Farmers & Merchants Agr.	
Show, New Bethlehem	Aug. 4-6
Great Allentown Fair,	
Allentown	Aug. 6-14
Greene Co. Fair,	
Waynesburg	Aug. 9-14
Wayne Co. Fair, Honesdale	Aug. 9-14
Butler Farm Show, Butler	Aug. 10-13
Potter Co. Fair, Millport	Aug. 10-14
Union Co. West End Fair,	
Laurelton	Aug. 10-14
Rostraver Free Fair,	
Rostraver	Aug. 11-13
Stanton Comm. Fair,	
New Stanton	Aug. 11-14
Town & Country Fair,	
Sykesville	Aug. 12-14
Delaware Valley Fair & Farm	
Show, Milford	Aug. 12-14
Junior Achievement Show,	
Bloomsburg	Aug. 16-18
Dayton Agr. & Mech. Fair,	
Dayton	Aug. 16-21
Carlisle Fair, Carlisle	Aug. 16-21
Franklin Co's Sportsmen's	
Fair, Chambersburg	Aug. 16-21
Washington Co. Fair,	
Washington	Aug. 16-21
Westmoreland Co. Fair,	
Mutual	Aug. 16-21
Kutztown Fair, Kutztown	Aug. 16-22
Huntingdon Co. Fair,	
Huntingdon	Aug. 16-23
Morrison Cove Dairy Show,	
Martinsburg	Aug. 17-20
Lawrence Co. Farm Show,	
New Castle	Aug. 17-20
Blue Valley Farm Show,	
Bangor	Aug. 18-20
Kiwanis Club Comm. Fair,	
Middletown	Aug. 18-21
Harrold Fair, Greensburg	Aug. 18-21
Youngsville Comm. Fair,	
Youngsville	Aug. 18-22
Middletown Grange Fair,	
Newton	Aug. 19-21
Harford Fair, Harford	Aug. 19-21
Venango Co. 4-H Fair,	
Oil City	Aug. 19-21
Crawford Co. Fair,	
Meadville	Aug. 23-28
Somerset Co. Fair,	
Meyersdale	Aug. 23-28
West End Fair, Gilbert	Aug. 24-26
Adams Co. Fair,	
Abbottstown	Aug. 24-28
Bullskin Twp. Comm. Fair,	
Wooddale	Aug. 24-28
Gifford Comm. Fair,	
Gifford	Aug. 25-27
Hookstown Grange Fair,	
Hookstown	Aug. 25-28
Wolf's Corners Fair,	
Tionesta	Aug. 25-28
Forage Progress Days,	
Hershey	Aug. 26-28
Transfer Harvest Home	
Fair, Transfer	Aug. 26-28
Centre Grange Fair,	
Centre Hall	Aug. 27-Sept. 2
Reading Fair, Reading	Aug. 27-Sept. 6
Scott Twp. Comm. Fair,	
Montdale	Aug. 30-Sept. 1
Wattsburg Fair, Wattsburg	Aug. 30-Sept. 4
Fulton Co. Fair,	
McConnellsburg	Aug. 30-Sept. 4
Indiana Co. Fair, Indiana	Aug. 30-Sept. 6
Sullivan Co. Fair, Forksville	Sept. 1-4
Greene-Dreher-Sterling	
Fair, Newfoundland	Sept. 1-4
McKean Co. Fair,	
Smethport	Sept. 1-6
Allegheny Co. Fair and Westn.	
Pa. Exposition, Library	Sept. 2-6
The Great Stoneboro	
Fair, Stoneboro	Sept. 2-6
Tioga Co. Fair, Tioga	Sept. 2-6
Carbon Co. Agr. Fair,	
Lehigh	Sept. 5-11
Ox Hill Comm. Agr. Fair,	
Home	Sept. 6-9

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(Continued on next page)

American Agriculturist, July, 1965

Cambria Co. Fair, Ebensburg	Sept. 6-11
Juniata Co. Fair, Port Royal	Sept. 6-11
Upper Perkiomen Valley Comm. Fair, Pennsburg	Sept. 7-10
South Mountain Comm. Fair, Arendtsville	Sept. 7-11
Waterford Comm. Fair, Waterford	Sept. 8-11
Pymatuning Comm. Fair, Jamestown	Sept. 8-11
West Alexander Fair, West Alexander	Sept. 8-11
Spartansburg Comm. Fair, Spartansburg	Sept. 9-11
Berlin Brothersvalley Comm. Fair, Berlin	Sept. 9-11
Penn. All-American Dairy Show, Farm Show Bldg., Harrisburg	Sept. 13-17
Penna. Black and White Show, Harrisburg	Sept. 14
York Inter-State Fair, York	Sept. 14-18
Southern Lancaster Co. Fair, Quarryville	Sept. 15-17
Cochran Comm. Fair, Cochran	Sept. 15-18
Green Township Comm. Fair, Commodore	Sept. 15-18
Turbotville Comm. Fair, Turbotville	Sept. 15-18
Claysburg Comm. Farm and Flower Show, Claysburg	Sept. 16-18
North East Comm. Fair, North East	Sept. 16-18
Falls-Overfield Fair, Mill City	Sept. 16-18
Albion Comm. Fair, Albion	Sept. 16-18
Gatz Fair, Gatz	Sept. 20-25
Bellwood-Antis Twp. Comm. Fair, Bellwood	Sept. 21-23
West Lampeter Comm. Fair, Lampeter	Sept. 22-24
South Lebanon Comm. Fair, Lebanon	Sept. 22-24
Harmony Grange Comm. Fair, Westover	Sept. 22-25
The Ephrata Fair, Ephrata	Sept. 22-25
Beaver Comm. Fair, Beaver Springs	Sept. 22-25
Oley Valley Comm. Fair, Oley	Sept. 23-25
Northwestern Pa. Livestock Show, Meadville	Sept. 27-29
Bloomsburg Fair, Bloomsburg	Sept. 27-Oct. 2
New Holland Farmers' Fair, New Holland	Sept. 29-Oct. 2
Sinking Valley Comm. Farm Show, Altoona	Sept. 30-Oct. 2
Holidaysburg Comm. Fair, Holidaysburg	Oct. 5-7

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WANTED — HORSE DRAWN CARRIAGES. surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

WANTED: PRE 1940 RAILROAD timetables from steam or electric lines. Also railroad and interurban brochures, folders, books, pamphlets, guides, switch keys, badges, miscellaneous. Also old steamboat, automobile, circus and campaign items. Will buy single items or collections. Write Fred Arone, 377 Ashford, Dobbs Ferry, N. Y. 10522.

WANTED. Used Herringbone Milking Parlor, equipped. Call 201-735-8497. Ludwig Roerig, Pittstown, N. J. 08867.

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SEND WOOL TO US for beautiful, warm blankets. Free literature. El Dorado Woolens, Inc., Eldorado, Texas.

WOMEN'S INTEREST

UNBREAKABLE PLASTIC FREEZER Containers. Square pints, \$9.95; quarts, \$14.95 per hundred, postpaid. Sample pint 25¢. Oxboro, Box 7097-N, Minneapolis, Minn.

FREE! 48 page 1965 Trailblazers Almanac with special offer. Beautiful ladies nylons. 3 pair \$1.00. American-AD-P 21831 Cloverlawn, Oak Park, Michigan.

EARN EXTRA MONEY invisibly reweaving damaged garments at home. Free information. Eastern Reweaving School, AFN-5 Main, Hempstead, New York 11551.

RAISE RABBITS for us on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon 14, Ohio.

MONEY IN DONUTS—Make new greaseless donuts in kitchen. Sell stores. Free recipes. Duncan 3605 South 15th. Minneapolis 7, Minnesota.

FUND RAISING? Sell imported gifts & Novelties sent direct from Europe. No investment. PGI, Box 727, Greenwood Lake, N. Y.

Manheim Farm Show, Manheim	Oct. 6-8
Montour-Delong Comm. Fair, Washingtonville	Oct. 6-9
Hegins Twp. Comm. Fair, Hegins	Oct. 7-9
Unionville Comm. Fair, Unionville	Oct. 7-9
Morrison Cove Comm. Fair, Martinsburg	Oct. 13-15
Dillsburg Comm. Fair, Dillsburg	Oct. 14-16
Penna. Livestock Exposition, Farm Show Bldg., Harrisburg	Nov. 8-13
Uniontown Poultry and Farm Products Show, Uniontown	Nov. 25-27
Penna. Farm Show, Farm Show Bldg., Harrisburg	Jan. 10-14, 1966

New York State Sales Tax — The new sales tax goes into effect August 1. A Sales Tax Information Center has been established. Phone requests for information may be called direct through Albany GL 7-2780. Mailed inquiries should be directed to the Sales Tax Information Center, P.O. Box 5028, Albany, New York 12205.

Grange Winners — Chosen New York State Grange Prince and Princess were William J. Francisco, Middletown, and Linda Burke, Canton. "Runners-up" were Thomas Hebeisen, Portland, and Donna Reed, Canandaigua. Named best of show in the annual talent contest was Mary Diefendorf of Mapletown Grange, Montgomery County. She won first place in the vocal category for her rendition of Handel's "Largo."

"Land for Living" — This is the name of a film prepared by Cornell University, showing how city families are converting nearby hill farms to places of fun and relaxation for their private use. The film is 28 minutes long and in color. Four families in Broome County tell advantages and problems encountered in their move to the country for recreation. Groups interested in seeing "Land for Living" may request the film from the Film Library, Roberts Hall, Cornell University, Ithaca, N.Y.

Bigalow — Ivan W. Bigalow, 43, pioneer in the development of livestock systems as an industry marketing representative for United States Steel Corporation, died on May 31.

A native of Ticonderoga, New York, he was an extension agricultural engineer at Cornell University for several years. He was an agricultural engineering consultant to the C. H. Hood Dairy Foundation, Boston, Mass., for two years and joined U. S. Steel's Agricultural Industry Marketing organization in 1956.

Meat Inspection — The New York State Meat Inspection Law covers all meats slaughtered and transported in the State of New York. Exempt is a bona fide farmer who slaughters his own animals on his premises for his own use. If he desires to transport the meat, he must complete form MI-13. Farm-dressed meat not covered by this certificate, and other meat which does not bear the New York State Inspection legend is subject to seizure if transported.

Forms MI-13 are available from veterinarians and county Extension offices.

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Syracuse, New York 13202





AIR POLLUTION PROBLEM

by Amos Kirby
New Jersey Editor

AIR POLLUTION is fast becoming as urgent as is the tax question in New Jersey. Not only are growers finding that air pollution is damaging crops, but the public and the Legislature are taking a second look at this subject that heretofore might be ranked with mosquitoes as a nuisance... but something about which nothing much could be done.

Now getting public attention are automobile and truck exhausts, poultry and hog farms. The Legislature is authorizing controls on motor vehicles when practical control devices are developed. Town folks who have moved into poultry and hog farm areas are demanding that fumes and odors be eliminated.

Research

John Gerwig, Director of Extension, reports in "Food Facts from Rutgers" that since 1960 the College and the Experiment Station have been working on air pollution as it affects fruit and vegetable crops. The Rutgers study has revealed that ozone, a little-recognized substance, is one culprit in causing injury to many crops.

John Bezpa, specialist in poultry science, in reply to a question on what poultrymen are doing in disposal of waste products from poultry farms, suggests that the

best practice is to plow the waste products into the soil. This involves having sufficient land and adequate equipment. The equipment includes a tractor and a liquid disposal tank, plus a desire to follow good sanitary practices. Two Central Jersey poultrymen... Joe Rubenstein, Hightstown and Sol Tave, Lakewood... are following this system, and are highly pleased with the results.

Apple Plantings

There is a trend in apple production that promises to change the industry in New Jersey. It involves the planting of semi-dwarf trees using the Hibernial and other rootstocks.

Ernest Christ, Extension specialist in pomology at the Agricultural College, reports that apples budded on the Hibernial rootstock are now being grown on at least 25 percent of the total acreage in the State. In the 1963 survey, the number was estimated at about 500,000 trees, representing about 10,500 acres.

County Agricultural Agent Ray Battle, Gloucester County, adds that the smaller trees reduce the amount of labor required in harvesting the crop, and that one may plant a larger number of trees per acre. Another advantage is that

these trees come into production at from 3 to 4 years, compared with 8 to 10 years on the older type of rootstocks.

Among the wellknown growers who have made substantial plantings are Charles Roth and Robert Schober in Gloucester County; Coles Roberts and William Haines, Burlington; Norman Applegate and William Schlechtweh in Monmouth; and Ernest Race, Warren County. And there are many others who have turned to apples on the Hibernial rootstocks.

Asparagus Pack

South Jersey has made its first break in the method of packing asparagus in 50 years. At the plant of the Huber Produce Company, Pedricktown, we saw asparagus being packed in a two-pound consumer container. This is an all-green pack, and each bunch is placed in an attractive waxed container that resembles those used by dairies for cottage cheese.

The new pack is meeting with good consumer reception. While the Grand Union Tea Company is taking most of the pack, other chains are vitally interested. There is a slight increase in cost, but the

finer product actually costs the consumer less money.

Moves East

A Colorado dryland vegetable grower has come to New Jersey. Mizokami Brothers, Alamosa, Colorado, big vegetable growers in that State and in Mexico, have rented a 200-acre farm near Williamstown, to learn if there is any advantage in being closer to their markets. Clarence Yoshida, a brother-in-law of the Mizokami Brothers, is in charge of their New Jersey operation. They are growing lettuce, cabbage, and other crops on their initial venture in the East.

Dry Farming

New Jersey is in the grip of a 45-month cycle of dry weather. The folks at the College of Agriculture tell us that the present cycle started in September, 1961, and is continuing into 1965. Farmers are being forced to change their cropping practices, and unless there is some change they are facing some of the problems of dryland farming in the Rocky Mountain area.

Food For The Spirit



by Robert Clingan

Numbering Our Days

The calendar makers have given each day of each month a number; the Psalmist has asked God to help him give each day in the year a number. He says in Psalm 90:12 "So teach us to number our days that we may get a heart of wisdom." What can he mean, this singer of the "Lord's Song" when he says, "Teach us to number our days?"

He must mean, first of all, that no day is to be taken for granted; every day is a gift of God. Each day is a portion of our allotted time upon the earth... a unit of time that can be used or abused. It can be used to bless or curse, to build or destroy, to help or hurt, to heal or tear apart.

We can even permit the day to slide by in utter uselessness. We can fritter it away with life's trivialities, or use it to indulge in the costly privilege of self-pity. The day can be used to enrich our minds, understand our neighbors, communicate with others, and even meditate on the significance of the events of the day and of our lifetime. Every day is rich with infinite possibilities.

The days which affect our lives the most are not a few unusual days, or even the so-called important days such as anniversaries of our wedding, and the birthdays of our dearest friends and members of our families. It is true, of course, that some days are days of more crucial and critical decision. A man can sometimes trace a direction of his life to a crucial

experience, or a pivotal decision. Even a statement of a friend may have given his life a new sense of direction and purpose, and guided him toward the path that spelled fulfillment.

What the man who remembers a turning point may forget is the day-by-day experience that made him ready for the pivotal decision, or open to the crucial influence. He may also forget and minimize the importance of the day-by-day effort by which he nurtured the new decision and brought his dream to realization. Without making each day count, he could never have achieved his goal.

So do not despise a day; consider no day unimportant. Each day has its link to forge in the chain of life, and no chain is stronger than its weakest link. The man who knows what to do with a day is the man who knows what to do with a lifetime.

The Psalmist must also have recognized the wisdom of "letting each day stand by itself" when he said, "Teach us to number our days." Far too often a day in a person's life falls short of what it should mean because it is marred by the memory of past failure. To its own burden is added the burden of a previous day. As Christians we must accept the forgiveness of God for the days that are past, and not allow them to draw life from each new day.

A friend of mine who is a consulting psychologist has told me that one of his most successful techniques to help a man burdened by guilt and memory of failure has been to ask him to date his failures. This places them in the past where they belong. Then he says, "You were a failure then, what are you going to do with your life now?" The now is today, the day we are to number, and the day we are to live to the full.

1965 FAIR DATES

NEW JERSEY

Union Co. 4-H Fair, Elizabeth	July 9-10	Middlesex Co. Fair, East Brunswick	Aug. 10-14
Cumberland Co. Fair, Bridgeton	July 19-24	Mercer Co. Farmers' Picnic and 4-H Show, Trenton	Aug. 13-14
Cape May Co. 4-H Fair, Cape May	July 22-24	Somerset Co. 4-H Fair, Somerville	Aug. 18-21
Monmouth Co. 4-H Fair, Freehold	July 22-24	Warren Co. Farmers' Fair, Harmony	Aug. 18-21
Gloucester Co. 4-H Fair, Clayton	July 27-31	Atlantic Co. 4-H Fair, Egg Harbor	Aug. 19-21
Burlington Co. Farm Fair, Lumberton	July 29-31	Essex Co. 4-H Fair, Caldwell Township	Aug. 20-21
Ocean Co. Fair, Lakewood	Aug. 4-5	Morris Co. Fair, Parsippany-Troy Hills	Aug. 20-28 (except Aug. 22)
Salem Co. Fair, Cowntown	Aug. 5-6	Flemington Fair, Flemington	Aug. 31-Sept. 6
Passaic Co. 4-H Fair, Preakness	Aug. 5-7	Bergen Co. 4-H Fair, Paramus	Sept. 11
Camden Co. 4-H Fair, Clementon	Aug. 6-7	New Jersey State Fair, Trenton	Sept. 18-26
Sussex Co. Farm & Horse Show, Branchville	Aug. 9-14		



Tunis Denise (center) veteran fruit grower of Colts Neck, New Jersey, receives from Secretary of Agriculture Phillip Alampi (right) the Gold Medallion of the New Jersey Agricultural Society at the annual meeting held in Trenton. Reelected as president of the 184-year-old Society is Michael J. Klein of Hope (left).



FARM DOLLAR GUIDE

EGG PRICES are likely to improve by fall because of smaller hatching of egg-type chicks. Broiler placements are up, likely to depress prices. Turkey prospects look fairly good.

USDA THREATENS TO TERMINATE Federal Milk Marketing Order 4 (Delaware Valley). It's rumored that government would like to get rid of dealer pool system in Philadelphia area. Some dairy leaders in Northeast have long objected to dealer pools, which encourage high Class I utilization by each dealer and, it's claimed, result in dumping of surplus on New York market.

FERTILIZER is one of cheapest things farmers buy in terms of potential profit that it can contribute. Topdress meadows after first cutting.

PROPOSED RED TART CHERRY MARKETING ORDER to cover important U. S. growing areas failed to get required two-thirds approval of growers or 50 percent approval by processors. So, for present Order is out.

LONG RANGE WEATHER FORECASTS indicate probability of another dry year in the Northeast, especially in southeastern New York. Plan now on how to meet the situation.

OUTLOOK FOR LIVESTOCK GROWERS is favorable, due largely to smaller numbers of animals. Beef cattle on feed number 2% below last year. On March 1, number of market hogs was down considerably, and number of pigs farrowed in ten Corn Belt states December to February was down 8%. Sheep and lamb numbers also down.

DIELDRIN AND ALDRIN may be in trouble with the Food and Drug Administration, which has proposed new regulations on tolerances that would virtually ban use of these pesticides on at least 55 crops. Keep in touch with your county agent on the use of these two materials.

SUMMER IS GOOD TIME to plan winter milking comfort. For milking parlors Cornell recommends overhead radiant heat lamps. Heating entire milking parlor is not recommended because of possible cow health hazards due to change from cold barn to warm parlor and back again.

GOVERNMENT CRACKDOWN on seasonal foreign workers on farms has worried farmers everywhere. New England needs seasonal help for apple harvest; New Jersey uses many, as do many areas in New York. We hear that Secretary of Labor Wirtz is seeing some light and has modified his stand. He is putting on campaign to recruit high school students for farm work.

CHANCES FOR PASSAGE by Congress of Class I base plan for milk look better. Would give dairymen under Federal Marketing orders Class I price for milk produced up to quota, lower price for excess. Dairymen in each market area would vote for or against.

CLEAN UP WOODY PLANTS along fence rows, roadsides, etc. with a summer spray of 2,4-D plus 2,4,5-T. Poison ivy treatment is Amitrole-T. Many brand names available; look for fine print to find active ingredients.

SIX WEEK GROWTH interval between cuts of alfalfa is a reliable rule for maintaining stands.

U.S. POTATO ACREAGE is up 7%. Normal weather will bring a crop certain to sell at low prices. USDA recommended an acreage cut of 7%. One way to meet the situation is to develop a market early.

SAFE USE OF PESTICIDES includes disposal of empty containers. Avoid leaving containers, either empty or partly-used, where available to children. Never put materials in unlabeled containers. Good disposal method for "empties" is to bury. Don't burn containers that held herbicides; fumes may damage nearby crops.

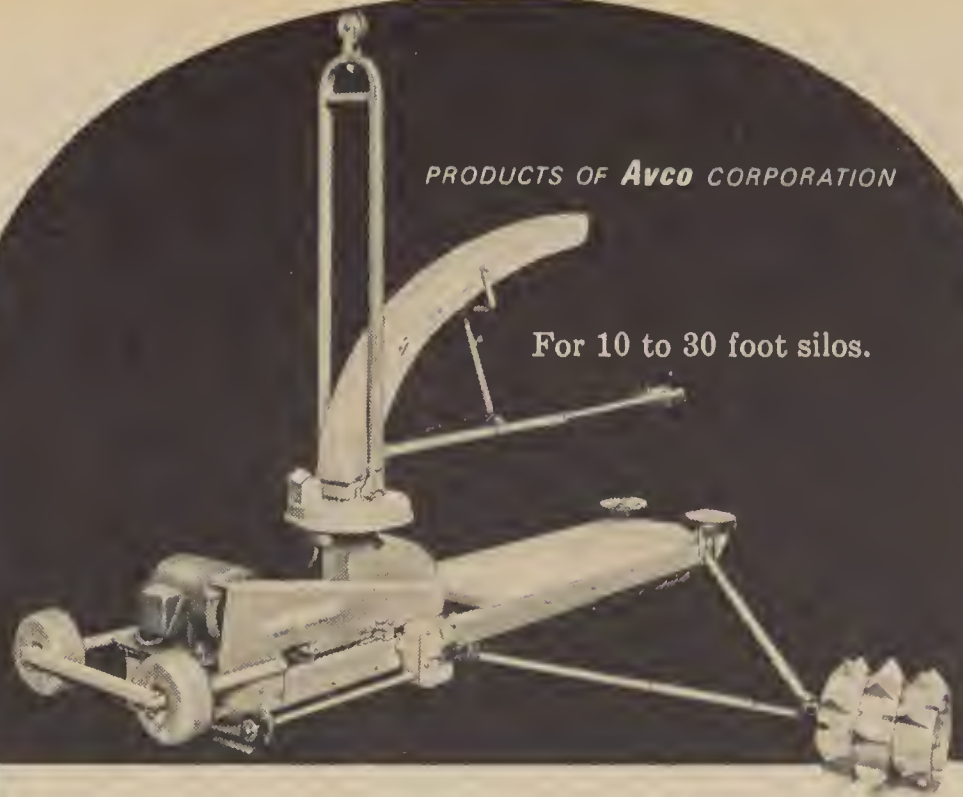
PRIOR TO WORLD WAR II, the U. S. ranked No. 1 in the export of fresh apples, exporting 10 million bushels annually, 8.5 million bushels to Western Europe alone. Today, the U. S. ranks 6th, with an annual export total of 3.5 million bushels, and its Western European market is limited to 2.0 million bushels. Why the decrease? Production has boomed in Italy, and is up in France, the United Kingdom, and other Western European countries.

"SHORTAGE OF SURPLUSES" Claiming a lack of enough surplus dairy products to supply school lunch, relief, and foreign aid needs, it's now proposed to use Commodity Credit Corporation funds to buy dairy products for these purposes.

U. S. BLUEBERRY PRODUCERS have organized an International Promotion Council to boost the crop. New product research will be high on the list of activities.

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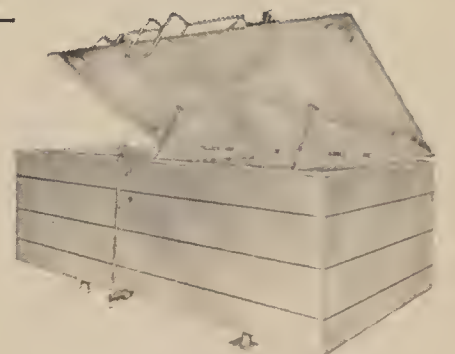


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"Doc" Mettler Says:

COMMON SENSE MANAGEMENT

RECENTLY in a non-farm paper I saw two conflicting editorials within a week's span. One was concerned with the "over-production" of the U. S. farmer; the second deplored the "population explosion," and direly predicted that in twenty-five years we'll all be starving to death because "American farmers are too conservative" to take on new methods and produce enough food for the world.

Farmers may be conservative as far as politics are concerned, but one has only to reminisce back twenty-five years to realize that farm progress in production has expanded so much due to rapid changes and better management in farming that things done today seem fantastic. Most of us connected with farming have little doubt that if not hindered by government regulation the American farmer can produce far more in the next twenty-five years.

Twenty-five years ago it was felt that the most milk could be made from a cow while she was grazing good pasture. This still may be true. But it is not practical to make a cow producing one hundred pounds a day walk all over a twenty-acre lot picking her own feed... and trampling more than she picks... when a forage harvester can cut it, chop it, and bring it to her with no waste, and no energy used on her part to walk, graze, switch flies, and possibly hurt herself in doing so.

Cattle Grazing

I had set out to write a few words about the health problems associated with cattle on zero pasture. After much reflection and discussion with fellow veterinarians I realized that when there is good management we don't have as many veterinary problems with zero pasture as we do with cattle grazing.

In this area the milk price takes nearly a dollar a hundred jump on July 1st in order to encourage summer milk production when the market demands it. One has only to look at the pool utilization percentages to realize that if dairymen are informed as to when the milk is needed, and why, and are paid a fair price for their trouble, they will produce milk to hold a market.

Two things control this jump in production, both of which are achieved by good management. First, breeding cows to freshen in early summer; second, feeding properly during the hot summer when it is the most difficult to produce milk.

Each farmer attacks the problem differently. There are the extremes... from the man who irrigates small patches of legume pasture and alternates their use, to the man who keeps the cows in the barn or yard and brings in greenchop or silage and hay all

day long. Which course a man follows depends on the physical makeup of the land on his farm. You can't greenchop some of our rocky Berkshire hillsides, for instance, but you can fertilize and rotate pastures.

We do see an occasional cow that can't take too much nitrogen. Perhaps I am technically incorrect, but to my mind these cows have a form of grass tetany. They may stagger or go down; their temperature is usually below normal; they may be constipated or have diarrhea. All in all, they act like milk fever cows. Usually they are treated with calcium and magnesium intravenously, and if not too far gone, respond quite well.

Bloat may be seen on zero-pastured cows as well as pastured ones. If the chopper breaks down and cows go hungry for twelve hours, be cautious when you start to feed again. Cows have bloated on green oats chopped in the rain, green chopped recently-frosted alfalfa, and/or just plain greenchopped grass when fed after being without feed for eight to twelve hours. So, if feeding operations are stopped, get some dry hay into the cows before feeding the greenchop, and then restrict the amount of greenchop while cows are brought up to full feed again.

The most usual procedure in this area is to pasture at night and again until the heat of the day, and then bring the cows into the barn, where they are free from flies and actually cooler than outside. This way they will eat hay and silage or greenchop all afternoon instead of lying under a shade tree or hiding in the bushes. This sort of setup is nearly without problems. One exception is if the pasture is very poor and cows are given one large feeding of perhaps eighty pounds of greenchop. When this happens they might not bloat, but they will develop an impaction of the rumen, and an indigestion that resembles hardware disease. This can be avoided by spreading out feeding of greenchop to more than once a day.

Need Exercise

Cows kept in with no exercise can develop the same troubles in summer as in winter: sore feet, arthritis, and "bed sores." Cows should have at least two hours of exercise outside of the barn per day to keep up their strength. Foot problems were discussed in a recent article. All I shall say here is that a good foot trimmer is a valuable man to know, and that breeding cows with better feet and legs can't be over-emphasized.

What this summer and future will bring is anybody's guess. At any rate, I'll bet on the Northeast dairy farmer to meet it and cope with it with the same good common sense management he has always used, plus a few new ideas to meet the change.



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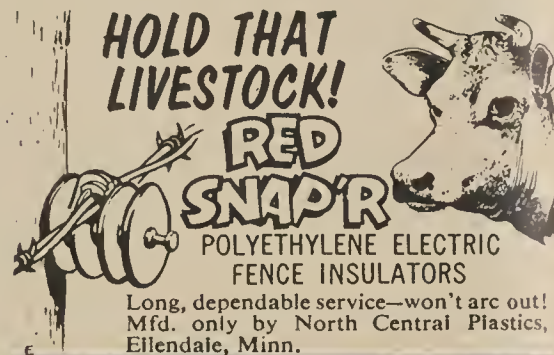
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FLY CONTROL - POULTRY

by John G. Matthysse*

POULTRYMEN ARE well aware of objections to their farms near suburban and resort developments. Odors and flies are the big offenders; manure disposal is the key to both, but it isn't easy to turn the key. So far as flies are concerned, keep it dry or keep it wet, but not in between. Controlled atmosphere modern cage layer operations with liquid manure handling should have no fly problems.

The two worst poultry farm flies, common house fly and the little house fly (*Fannia canicularis*), will not breed in liquid manure. However, the system must be a good one as small pockets of moist... but not liquid... manure can breed tremendous numbers of flies. Also, watch the lagoons because drying manure can reach correct conditions for fly breeding and nullify all your efforts. Liquid manure can breed several kinds of midges and tiny flies that may be annoying on the farm.

At the opposite end of the scale, floor-housed birds won't produce many flies if the manure is kept dry. Your worst enemies here are long spells of wet weather and leaky drinking fountains.

If you have leaky troughs, poor overflow, clogged pipes, leaky faucets, etc., you are sure to breed flies in the manure nearby. If ventilation is deficient and the house is humid, the fly problem is likely to be severe. If it rains for two weeks in June you are probably going to have fly problems. To prevent flies from breeding in litter, the litter must be almost dusty dry.

Cage houses with "dry manure" handling are most likely to have fly problems, as are slatted floor and other specialized types of houses where manure accumulates rapidly and has little chance to completely dry out. Frequent complete manure removal, at least weekly and preferably oftener, can solve such a fly problem but may not be economic. Also remember that good-sized maggots in manure are not killed by going through a spreader. These will mature and produce flies that likely will fly back to the chicken house.

Management

Manure management to prevent fly breeding is the best solution to the fly problem, and seldom is insecticide application on manure a proper answer. Insecticide manure treating can only be done where the birds do not have access to the manure, because toxic effects to the birds are likely if they do have access to it.

A most effective manure larvicide is .25 percent Cygon in water or oil sprinkled lightly but evenly over the manure every one to two weeks. Korlan (.25 percent) may be used (but in some parts of New York flies are resistant to Korlan), or a special larvicide calcium arsenate formulation. A strong argu-

*Entomology Department, Cornell University

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ment against larviciding with Cygon or Korlan is that this is the best way to produce resistance, thus making these insecticides useless.

Excellent fly control can be obtained by a thorough house spraying with one percent Cygon, wetting all ceilings, walls, posts, etc. This requires one gallon of spray to every 300 to 500 square feet of surface. Spraying Cygon must be done only when there are no birds in the house. Korlan (1 percent) may be used similarly, even with birds in the house, if you are careful not to allow spray to drift or drip on the birds. In New York State we have much resistance to Korlan, so fly control may be poor.

Fogging

Fogging or misting with electric "fog" machines will kill all flies flying in the house, but must be repeated as soon as more fly in or hatch out. Best results will be obtained in thoroughly-screened houses. Pyrethrins (.1 percent) plus synergist is best for this purpose, although sprays of .06 percent pyrethrins will work. Do not use livestock sprays containing Vapona or Ciodrin; these may be toxic to the birds.

Fly baits can be effective if used liberally and replaced frequently. A few bait stations may look good to the poultryman because he sees circles of thousands of dead flies, but if he looks around elsewhere he will see many more still happily alive. It is not easy to find locations to apply fly bait on poultry farms as the birds must not have access to the bait and obviously bait can't be put in the way of human traffic.

Pie pans can be nailed up in areas of fly concentration and kept filled with bait. Liquid bait can be dispensed in chick waterers (of course, no chicks), but in any case make plenty of stations to do the job right. "Snip" fly bands are a form of bait and are easily hung so they will do a good job, but you must use one every 100 square feet of floor area.

Be cautious with pesticides around poultry. You can easily kill chickens with some pesticides safe for use on mammals. Read the label and be sure the product is specifically recommended for poultry. Heed the label precautions; do not contaminate feed or water. You can produce illegal residues in meat and eggs if you do not follow label directions exactly.

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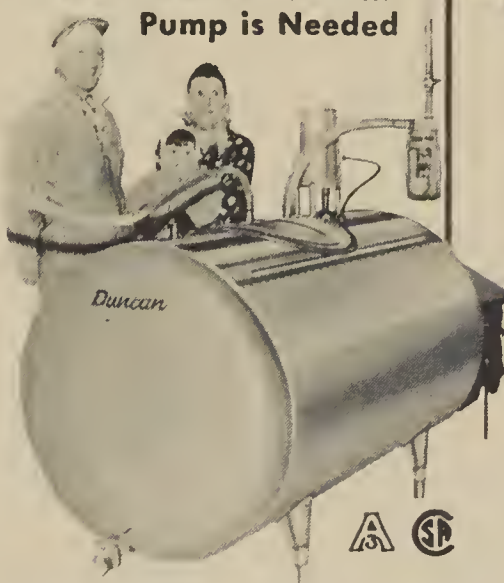
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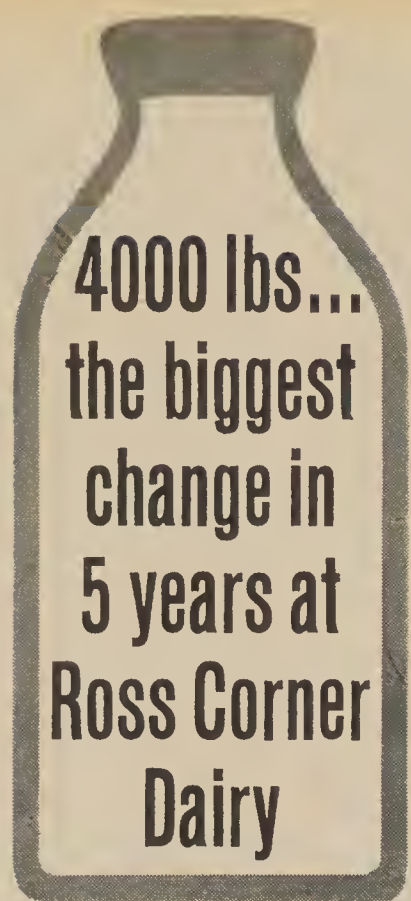
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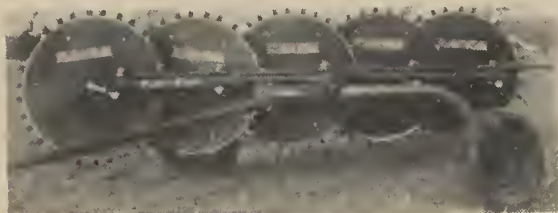
1959 Herd Average	1964 Herd Average
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414 Fat	552 Fat

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EMPIRE WINNERS

When it's time for the Empire Livestock Marketing Cooperative local annual meetings across New York State, the children clamor to go along with Mother and Dad. Why? Because at each meeting some lucky boy or girl is going to win the drawing for a purebred calf... or the equivalent in cash for other kinds of livestock. At Caledonia, multiple prizes are awarded.

Then the following year is a busy one for these winners, as they make sure that their reports on their animals... given at next year's annual meetings... will be good ones.

For the 1965 meetings the winners ranged from a first grader to a high school senior.

Daniel Morse, 12-year-old son of Mr. and Mrs. Russell Morse,



Daniel Morse



Carol Jackowski



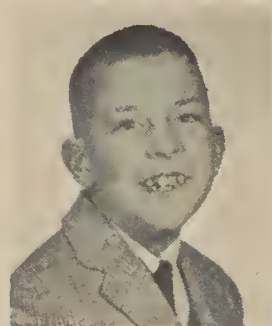
Robert Noble



Daniel Wise



Patricia Torrey



David Luce



Earl Johnson, Jr.



Laurel Sheldon



Sandra Merrill

Pine Valley, is a 6th grade student at Horseheads Central School and winner at the Bath Market. This is Dan's third year in 4-H Club work, and his award was a fine Holstein calf.

Carol Jackowski, the youngest recipient, is a six-year-old, a first-grade student at the Pine Bush School, and the lucky drawer at Bullville.

At the Caledonia Market several qualified for the prizes. For instance, Robert Noble, son of John Noble, Linwood, won a dairy heifer calf. Robert is a 2nd grader at Pavilion Central School. Daniel Wise, a 6th grade student at Caledonia-Mumford School, won a beef calf; Patricia Torrey, 13-year-old daughter of Clarence Torrey, Stafford, chose a purebred gilt; and Marilyn Sanders (12) a 7th grader at Byron-Bergen Central School, got a registered ewe lamb.

Winner at Dryden was David Luce, 8-year-old son of Mr. and Mrs. Russell Luce, Groton. His calf was donated by Petzold Farms, Newark Valley; and Earl Johnson, Jr., 10-year-old son of Mr. and Mrs. Earl Johnson, Spragueville, drew the lucky number at Gouverneur.

At Oneonta, Laurel Sheldon, a 5th grade student at the Unatego Central School, Otego, was the lucky winner; Sandra Merrill, high school graduate from Adams Center High School, won at Watertown; while at Producers-Empire Arlene Cook (10), daughter of Mr. and Mrs. Robert Cook, West Seneca, became the happy owner of a purebred animal.

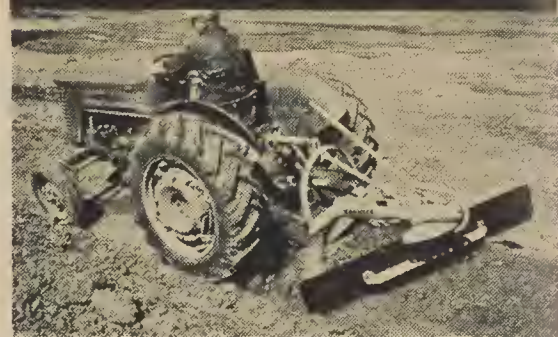
Committees

Advisory committees were named at each of the local meetings. Chairmen and vice chairmen (in that order) of these committees are as follows: Bath — Harlo M. Atherton, Canisteo, and Wellington Castner, Stanley; Bullville — S. Robert Kelder, Stone Ridge, and Leonard H. Baird, Chester; Caledonia — Harry D. Lusk, Pittsford, and Francis W. Matthews, Sr., LeRoy; Dryden — Frank K. Taylor, Cortland and W. Keith Hatfield, Scipio Center; Gouverneur — Clarence G. Young, Rossie, and J. Homer Martin, Lisbon; Oneonta — Hugh R. Sutherland, Delhi, and Kenton Robinson, New Berlin; Watertown — DeWitt C. Hubbard, Henderson, and Howard E. Slade, Adams Center; Buffalo — William F. Vollmer and Ben DeYoung, both of Akron.



Arlene Cook

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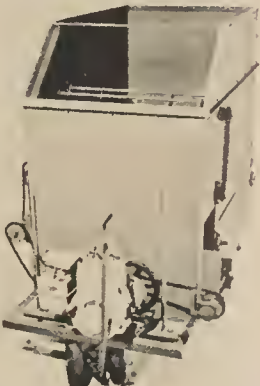
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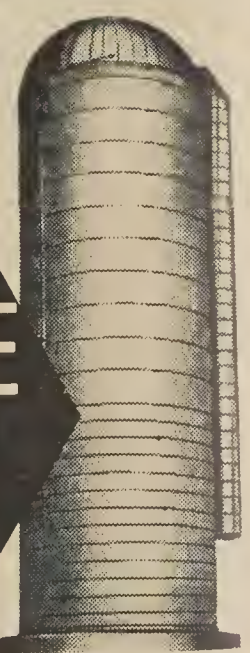
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PLANTS

VEGETABLE PLANTS, June 1st. cabbage, broccoli, Brussels sprouts, 100—\$1.35, 500—\$3.10, 1,000—\$4.75. Tomato, cauliflower, 100—\$1.75, 500—\$4.00, 1,000—\$6.75. Pepper, egg plant, 100—\$2.00, 500—\$4.70, 1,000—\$7.75. Jersey sweet potato, 200—\$2.45. Prepaid. Price list on request. Field Plant Farm, Sewell, New Jersey.

MILLIONS VEGETABLE PLANTS — Tomatoes: Rutgers, Chesapeake, Marglobe, Fireball, Heinz #1350, Glamour, Stokes #5, Campbell 146, Longred, Homestead, #124. Cabbage: Copenhagen Market, Golden Acre, Jersey and Charleston Wakefield, Early and Late Flat-dutch, Dannish Ballhead, Round-dutch, Green-back, and Drumhead Savoy. Collards: White Cabbage, Vates and Heading. Lettuce: Great Lakes, Onions, Broccoli, Brussel Sprouts, Black Beauty Egg Plant, Pepper: California Wonder, Hot Red Cayenne, Snowball cauliflower. Potatoes: Runners, Porto Rico and White Hayman. 100—\$1.50, 300—\$3.25, 500—\$4.25, 1,000—\$6.00. Postpaid. Cabbage—\$2.50, Tomatoes—\$3.00, Pepper, Potatoes, and Egg Plant \$4.00 per 1,000 Express Collect or at Farm. Our plants are grown from best certified seeds and are Virginia State inspected. Moss packed. V. C. Lankford Co., Box 267, Franklin, Virginia. Phone: 562-5615.

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American Agriculturist, July, 1965

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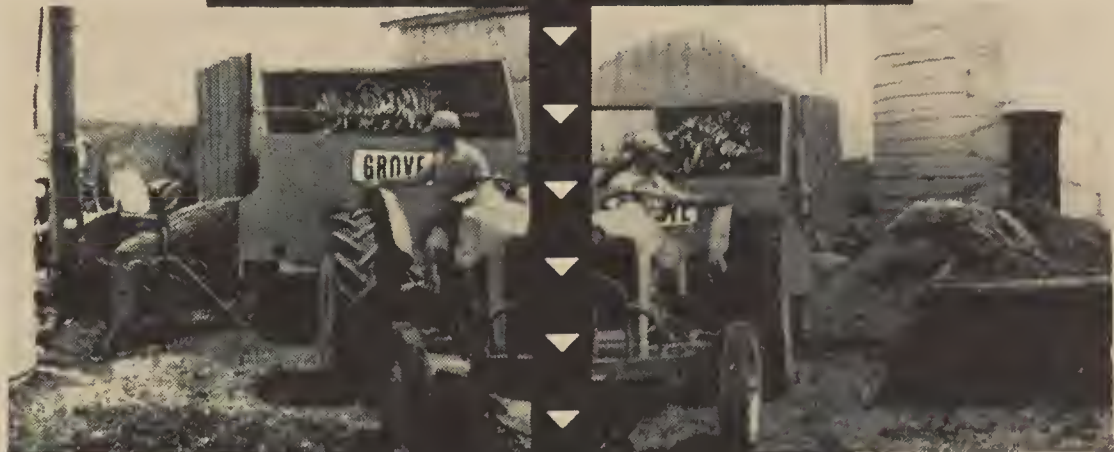
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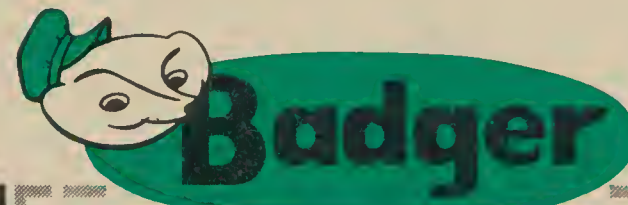
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DO YOU EVER take time to "browse" a bit when you shop in the supermarket? It's fun to do this occasionally, just to discover the interesting products which are appearing on the shelves and in food cabinets. You will probably wonder, as I always do, "What will they think of next?" Here are a few of these new products.

ON THE SHELVES

Old fashioned Cranberry-Orange Relish, ready for immediate use any time of year, without the usual kitchen grinding and mixing. Use it as a garnish for meats, as a spread or filling, or to give a tang to a molded salad. It is packed in a 14-ounce re-useable jar.

Peanut Butter Flavor Chips join the chocolate, butterscotch, and mint chips to be used in cookies, brownies, and the like. You'll like the recipe for peanut butter and jelly cookies given on the package. Or make some Peanut Chip Clusters. To make about 1 dozen, melt 1/2 cup peanut butter flavor chips in a small saucepan over low heat, stirring constantly. Remove from heat and stir in 2/3 cup skinned toasted peanuts, miniature marshmallows, flaked cocoanut, dark seedless raisins, or corn flakes.

Canned Bacon from at least

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with ALBERTA SHACKELTON



three meat packers who slice, partially fry, and can the bacon. Needs no refrigeration so is handy for picnics and vacation cooking; can be ready in time it takes to cook the go-along eggs.

No-Bake Cheese Cake Filling is made in minutes for a favorite dessert. The package holds one envelope of filling and another of graham cracker crumbs to make an 8-inch cake.

Diced Dates, coated with sugar, and packed in plastic containers all ready to use in many ways.

Cornflakes packaged with freeze-dried strawberries which will plump up and become juicy when milk or cream is poured over the cornflakes.

Graham cracker pie shells (2 to a package), ready to use as is or bake and fill with your favorite filling.

Chocolate-flavored sirup in an aerosol container which can be stored at room temperature —

from a manufacturer of canned milk.

FROM THE FOOD CABINETS

A recent trip along a food cabinet brought to light the following: a 4-ounce container of horseradish (incidentally, keep your regular horseradish in the refrigerator to keep it "hot"); 2-ounce package of frozen chives (this gives me an idea for freezing chives from the garden); 2 pastry rounds, packed in a roll and ready to fit into your pie tins to bake as a pie shell or fill and bake; pound loaves of bread, ready to let rise and bake — three loaves to a package of white, honey, and whole wheat bread.

WAYS WITH FOOD

U.S.D.A. food specialists recommend for freezing — a cake frosted only with an uncooked frosting made of confectioner's

sugar. The fat will keep the frosting moist and creamy 4 to 6 months. Frostings containing egg whites which dry out and become crystalline and whipped cream fillings are unsuitable for freezing.

These same specialists say it is not necessary to sterilize jars and lids before using them for canning. Just be sure they are clean, and the containers as well as the food will be sterilized as they are processed.

Did you ever wonder if you could successfully freeze a molded gelatin salad? Food specialists at the New Jersey Agricultural Experiment Station say this is possible if you use 1/4 less the usual amount of liquid. For example, with lemon flavored gelatin, use 1 1/2 cups water instead of the usual 2 cups. They guarantee the salad will not weep and that the celery will stay crisp. The following recipe is adapted by the U. S. Department of Agriculture for

(Continued on page 29)



Garden Talk

By NENETZIN R. WHITE

TROUBLE SHOOTING

"What is the matter with my plants?" is the question most often asked when you write me. Let's see if we can give you a little general information that will make it easier for you to diagnose some of the troubles yourself.

SOIL. Some soils may be too heavy to drain water adequately, or they may be too light to retain moisture. Good soil should be both friable and fertile. Heavy clay may need to be completely replaced, to have drainage added, or to have lots of organic material incorporated. I want to say right here that I have seen more dead plants from their being put in heavy clay than for any other reason. So the first thing to do is prepare your soil properly.

In a sandy soil, you will probably need to incorporate some organic material, such as peat moss, to retain moisture. You lucky few who have friable, loamy soil can add just a little organic material and have it made! Of course, grass or weeds will inhibit good plant growth, so prepare your whole bed at once, or remove sod around isolated plants.

FERTILIZER. When preparing beds, it is wise to add and thoroughly mix fertilizer with the soil according to the manufacturer's recommendations. I like to use an

all-organic fertilizer so there is no chance of burning. Organic fertilizer may be put right in the planting pockets. Just be sure it is organic, for a chemical fertilizer will burn and possibly even kill the plant. Bone meal is a good one for flowering or fruiting ornamentals, and several other complete organics are now coming on the market.

For the most part, I consider it wise to fertilize in early spring or late fall. Then it is utilized when the plants are in their first flush of early growth. Mid-summer fertilizing can cause lush new growth that may not harden off completely, and thus be winterkilled. Chemical fertilizer must be kept off roots and foliage, or you will have scorched leaf edges and maybe a dead plant.

MOISTURE. We used to feel that wet spots were a limiting factor, but there seem to be very few of these left. Our biggest problem today is lack of water. Also, we do have many plants that will tolerate wet feet. In the Northeast, our water table is way down, and we have an accumulated water deficit.

Since plants are almost 98 percent water, they will wilt, scorch, and make poor growth; buds will burn off, or they may even die due

to lack of water. Burning may just now be apparent from last fall's drought.

Did you know that a full grown apple tree will evaporate six barrels of water in a day? This shows that trees need to be watered deeply and frequently. Large trees can have a tile or two inserted vertically to help get water to the roots.

Soil soakers or sprinklers will get water in deeper than just plain watering. Another good idea is to leave your hose on overnight with a small stream about the size of a lead pencil. Mulches will also help to retain water, so use them.

SUN AND WIND. Many plants need sunlight to grow well. Often a spindly, sickly plant just needs more sun, and sometimes we forget that the trees around our plantings grow each year. There are many plants that will tolerate shade, so try to choose the proper plant for your particular situation.

Our central New York State area will not grow many plants that are hardy near the coast. They may survive for a year or two and then die in a less favorable season. I would suggest that you do your purchasing locally whenever possible and consult your county agent or Extension Service when in doubt.

Wind causes tremendous damage in drought areas. It can burn off new buds or tender young leaves. Winter winds can cause burning or even death of needle and broad-leaf evergreens. Late fall watering and a mulch will often help prevent this. New plantings which are usually quite susceptible to damage can be protected by using several branches of evergreens as a shield, and they are not unsightly.

INSECTS and DISEASE. For

the average ornamental gardener, I consider a "shot gun" insecticide-fungicide combination the best control. This is called "shot gun" because it is a combination of two to four insecticides and two or three fungicides. Such a spray or dust is commonly used on roses and is usually very good on other ornamentals. This will protect against the common garden pests and diseases.

If you continue to have damage after dusting or spraying thoroughly (getting the underside of the leaves and the soil), use a magnifying glass or microscope to try and identify the insect or the pattern of disease damage. There are special conditions that will need additional control. Again, if you have trouble, call on a person who KNOWS. You'll find that a reputable person in this field of horticulture is never afraid to say, "I don't know, but will find out for you."

PATTERNS

Beginning this month and continuing for the next few issues, we are expanding our pattern services to include two fashion features in each issue.

The patterns on page 28 have printed tissues plus a complete instruction guide. The patterns on page 27 have perforated tissues and come with a Photo-Guide instruction sheet. All patterns are in the same price range.

We ask that you be especially careful in ordering these patterns. Please make sure you send your orders to the correct address which is printed clearly in the box at the bottom of each pattern feature.

American Agriculturist, July, 1965

The AA Clothes Line

8234. Attractive half-size sheath that's simple sewing with Photo-Guide. Sizes 12½ to 26½. Size 14½, 35 bust, 3¾ yards of 35 or 45-inch. 35¢



8234
12½-26½



8239
36-52

8239. Popular pop-on in large sizes. Photo-Guide makes it sew-easy. Sizes 36 to 52. Size 38, 4 yards of 35-inch. 35¢

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8155 & 8156. Pretty look-alikes. 8155 is in sizes 10 to 20. Size 12, 32 bust, 4 yards of 35-inch. 8156 is in sizes 3 to 8 yrs. Size 4, sleeveless, 1¾ yards of 35-inch. Two patterns, 35¢ each.



8155
10-20

8156
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2890-H

2890H. A handsome butterfly pillow worked in easy smocking. Tracing and full directions for smocking and finishing. 25¢



CROCHET
5116-N



5116N. An amusing crocheted kitten to hide that extra roll of bathroom tissue. Work this fluffy kitten in no time! Crochet instructions; stitch illustrations. 25¢

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8242
10-20

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PATTERNS

4838. Three-part suit -- a cinch with a PRINTED PATTERN. Half Sizes 12-1/2 - 24-1/2. Size 16-1/2 suit: 4-1/8 yards 39-inch; blouse: 1-3/8 yards. 35 cents.

4907. Carefree cooler to whip up quickly. PRINTED PATTERN in Misses' Sizes 10-18. Size 16 takes 4-1/4 yards 35-inch. 35 cents.

7379. Straight and A-line skirts - two to knit; two to crochet. Directions for Waist Sizes 23-24; 25-26; 28-30 included. 25 cents.

569. Panel-pretty aprons of remnants, with or without bib. Pattern pieces, transfer and directions for Medium Size only. 25 cents.

4582. Tailored two for daughter - PRINTED PATTERN to guide you. Girls' Sizes 6, 8, 10, 12, 14. Yardage in pattern. 35 cents.

DRESS PATTERNS are 35¢ each. NEEDLEWORK PATTERNS are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011. Write name, address, pattern size and numbers clearly.

More than 350 spring-summer design ideas in our Catalog of Printed Patterns. Exciting fashion and fabric features plus ONE PATTERN FREE - any one you choose. Send 50¢ for Catalog now!

Three Free Patterns are printed in our 1965 NEEDLECRAFT CATALOG, plus 200 designs to order. Send 25¢.

New, DECORATE with NEEDLECRAFT Book-25 complete patterns for decorator accessories shown in 5 room settings. Send 50¢ now.



HELLO, MORNING

by Lois O'Connor

Hello, Morning,
What's in your pocket?
Light for the world,
Surprises to shock it?

How do you know
Who wants a rocket,
Or what wistful heart
Desires a gold locket?

Gifts sad or gay,
Whatever the docket,
Hello, Morning,
Open your pocket!

Round the kitchen

(Continued from page 26)

successful freezing.

MOLDED CHICKEN SALAD

- 1 can condensed cream soup (mushroom preferred)
- 1 tablespoon unflavored gelatin
- 1/4 cup water
- 1 cup diced celery
- 2 pimientos, cut in small pieces
- 1/2 cup COOKED salad dressing (not mayonnaise)
- 2 cups diced meat (may substitute turkey, ham, veal or tuna fish)

Soak gelatin in cold water and add heated condensed soup. Stir to dissolve gelatin, then add other ingredients. Mix well and pour into a mold. Chill in refrigerator until firm, then freeze (for no longer than 2 weeks). Thaw overnight in refrigerator.

OATMEAL CHOCOLATE CHIP COOKIES

- 1 1/4 cups light brown sugar
- 1/2 cup melted fat (salad oil is fine)
- 1/3 cup molasses
- 2 eggs
- 1 3/4 cups all purpose flour
- 1 teaspoon cinnamon
- 1 teaspoon baking soda
- 1 teaspoon salt
- 2 cups quick cooking oatmeal
- 1/2 cup coarsely chopped pecans
- 1 cup chocolate chips

Combine sugar, fat and molasses. Beat in the eggs. Sift together all dry ingredients and stir into egg mixture. Stir in oatmeal, chips and nuts.

Drop by teaspoonfuls on baking sheet and bake in quick oven (375) about 10 or 12 minutes. Makes about 50 cookies. If desired, add 1/2 to 1 cup moist shredded coconut to the mixture.

FOODS TO COME

Frozen tomatoes for those months when they cannot be picked from the garden. A new method of freezing will give consumers fresh tomato slices in frozen form.

A new kind of "Whipping Cream" is now being test marketed. Developed at Cornell University's Dairy and Food Science Department, "Melloream" is lower in fat content, whips to two or three times its original volume, stays whipped, and still tastes like regular whipped cream. It can be swirled on top of cake and will not soak into the cake.

American Agriculturist, July, 1965

What's Your Hobby?

Collects Book Match Covers

I collect book match covers from which I neatly remove the staple, thus leaving an undamaged cover in either used or unused condition. I save all varieties except "national" advertising. I am especially interested in covers from clubs, banks, motels and ones with small town names on them. — J. Edward Raynor, 295 S. Ocean Ave., Islip, L. I., N. Y.

A Real Project

My latest hobby is making electric lamp bases from hubs of wagon wheels stored on our farm for years. It is a lot of work to do this, but very interesting, and they make quite unusual lamp bases. — Mrs. May Noyes, Route 1, Belows Falls, Vermont.

A Worthy Cause

My hobby is saving stamps for a widow lady (Mrs. Duane Lawrence, Route 3, Bainbridge, N.Y.) who is helping her son in medical school. I wonder if others would like to help her also.

She can use any kind of cancelled stamps, including the most common ones. Also of value to her are the metered business envelopes. She prefers the whole envelope, but stamps can be cut

off if a margin of paper is left around each stamp. She can also use Christmas (T.B.) or other seals. — Mrs. Ernest Grant, Route 2, Fulton, N.Y.

House Plants

After my nine children grew up, I decided to start a hobby — collecting house plants. Several

friends gave me slips of theirs, and I now have 50 different plants started. There are many I don't have and would like to own, so would be glad to exchange slips or bulbs with other readers. I would also like to get a plant from each of our 50 states. — Mrs. Margaret Redlinske, New Sharon, Maine.



START A CLUB THIS SUMMER

If you and your friends have ever thought about starting a club, now is the perfect time to do it. With school out there is plenty of time for meetings and club activities. Everyone will have loads of fun and learn things too!

The first thing you should know is that there are certain rules you should follow at meetings. These rules are called "parliamentary procedure," which was started a long time ago in England. Today, we still

use some of these rules.

Just for fun, let's pretend you are going to start a Barbie Fan Club. Before anything else, you must elect officers. The members elected to be officers are important, because they represent you, so you want to be sure they take their offices very seriously. Four officers are usually elected. They are: the president, the vice-president, the secretary, and the treasurer.

The president calls the meeting to order, conducts the meeting, and then adjourns it.

The vice-president helps the president and takes over if the president is absent.

The secretary keeps the meeting minutes, and the treasurer keeps a record of dues.

The officers are elected by taking a vote, which we will explain in Barbie's next "Pigtails To Ponytails" column.

In the meantime, if you would like to organize your own Barbie Club and receive a set of Barbie's meeting rules, just write to Barbie Fan Club, P.O. Box 76083, Los Angeles, Calif. 90005. Membership is free!



Over the past 20 years the differences between regional and trans-continental airlines were many.

With the start of **MOHAWK** fan-jet service this summer, the only difference left will be the length of your trip!



IN SERVICE THIS SUMMER . . . A FLEET OF ONE-ELEVEN FAN-JETS

MOHAWK ONE-ELEVEN JETS WILL SERVE — Connecticut, Hartford; Massachusetts, Boston; Springfield; Michigan, Detroit; New York, Binghamton, Buffalo, Elmira, New York City, (Kennedy, Newark, LaGuardia, Westchester County), Rochester, Syracuse, Utica-Rome; Ohio, Cleveland; Pennsylvania, Pittsburgh; Vermont, Burlington.



Community project: A neat, standard white mail box for every rural residence. Note the swing arm on this one. If hit by a snow plow or by anything else it will give and not break. See article on this page.

ARE YOU PROUD OF IT?

The coming of the R.F.D. man is one of the big events of the farm day. The R.F.D. men I have known have been responsible, high-class citizens. Some of them, like the late Will McCullough of Newark Valley, New York, my home town, were my lifelong friends.

Will was one of the first rural carriers, making his long trip with horse and buggy, winter and summer, rain or shine. Reaching our house about noon, he used to put his horse in the barn for some oats and rest, and ate dinner with us. Besides the mail, Will brought news of the countryside, mixing it with his own kindly comment and philosophy. I wonder how many miles Will traveled in a long lifetime of driving the country roads.

Better Mail Boxes

Ordinarily no complainer, Will frequently wished that the folks on his route would put up better mail boxes. His description of some of them made us laugh. That was years ago, and I am sorry to say that there has not been much improvement since. Will told us it was impossible to reach some boxes without getting out of the buggy . . . and later from the car. "It's no fun," he said, "to fish some loose pennies out of a mail box on a bitter cold winter morning."

The next time you go for a ride notice how many awful contraptions there still are. An otherwise beautiful farmstead is often marred by a makeshift mail box. What about your mail box? Are you proud of it? It advertises you and your home.

It is suggested but not required that mail boxes be painted white. Of course they should be conveniently located, neat in appearance, and protect the mail from the weather.

The U. S. Post Office Department requires that mail boxes must be one of three sizes:

Size 1 should be 19 inches long, 6½ inches wide and 8½ inches high. Size 1-A is 21 inches long, 8 inches wide, and 10½ inches high, with a letter slot in the door.

Size 2 is 23½ inches long, 11½ inches wide and 13½ inches high.

Posts or other supports for mail boxes must be neat and of adequate strength and size. The box may be fastened either to a fixed or movable arm.

For information as to where boxes may be purchased, ask your mail man.

No minor project would add more to the general appearance of your neighborhood than a good-looking, standardized mail box on every homestead. Talk it over at your Grange or other local farm meeting. (See picture on this page.)

A SERIOUS PROBLEM

For over 30 years I have fought in speeches and in American Agriculturist against Big Government and the rapid increase of ruinous taxes.

In this battle against taxes I have always excepted school taxes, because money rightly spent in school taxes is an investment in the future of this country. But now, because of the tremendous increase

of school children, more care than ever must be used in spending school money wisely.

It is estimated that by 1975 we shall have need to provide teachers and classrooms for 10 million more children in New York State alone. Schools and colleges are bursting at the seams. No wonder it is called the population explosion.

Since the first settlers built their little schoolhouse, it has been the goal and ideal of Americans to give our children full educational opportunity . . . and we must continue to do so, because no democracy can long endure without an educated citizenry. But now to provide full educational opportunity to all of our teeming millions of children is going to strain our finances to the limit. I know of one school district where the proposed budget for next year is 10 percent above this year.

School taxes hurt, and they are sure to increase rapidly and hurt more and more. Therefore, it puts a greater responsibility than ever on boards of education and school administrators to use every cent of school money efficiently and where it will do the most good.

Many responsible citizens feel that because of the financial crisis in education, everything that might be considered a luxury in education must now be cut out. Swimming pools, for example, are nice, so are the great auditoriums, but when it comes to decision between these luxuries and salaries for good teachers and other necessities, there is now no choice.

The time is fast approaching when if those who spend the school taxes do not do it wisely, extremists may take over so that our children will lose not only the luxuries in education but many of the necessities as well.

I hope we can find solutions of this most difficult problem without unreasonable and bitter emotional controversy such as has often been the case with school matters in the past . . . with the children caught between. Instead, let us have understanding and cooperation, with a give-and-take attitude and compromise by all parties concerned.

If you don't expect an answer, I will be glad to hear from you, not with criticisms but with constructive comment and suggestions. Write to E. R. Eastman, 515 N. Tioga St., Ithaca, N. Y.

Resolve Daily to:

Do all the good you can,
To all the people you can,
As long as ever you can.



ED EASTMAN'S
PAGE

FROM A

"LITTLE BITTY FARMER"

Dear Ed:

After reading your piece about roadside marketing, I feel like dropping you a line of gossip. I am a mill hand, but this year I had six acres planted to garden crops as a side line.

My forefathers were farmers in R. I. since about 1680. Raising a family of 12 children has taken most of my time. Always had a large garden. With pamphlets from State College, catalogues and your paper, I have now a good knowledge of gardening.

We put a table beside the road in 1945. On it I put a few extra bunches of beets, carrots, etc. I went from ¾ acre to my present size; from a table to a building 10 x 20. Raise all I sell. I specialize in sweet corn. It was your little note in the paper I liked. My favorite is still Golden Cross for late crop. Harris North Star for early. Eastern States (now Agway) Golden Jewel second. Planted 5 lbs. of Harris Wonderful this year — lived up to its name.

I planted seven varieties this year for rotation, and missed only 3 days of fresh corn from July 22 until October 1st. By using a ton of lime to the acre and 50 lbs. of nitrogen, with corn picked fresh every day, I am giving the sweetest corn. Saturdays and Sundays I pick 2 to 4 times. I now sell 125 to 150 dozen on a Sunday. One old trick I have always done is to topdress most of my crops. Harris new pepper was good. Cannot find a tomato to equal Rutgers for trade, but it will not bear until last of August here in Rhode Island.

Respectfully yours,

A Little Bitty Farmer.

EASTMAN'S CHESTNUT

A young lady and her friend wished to attend a theater and were unable to get seats side by side. When she took her seat, she sized up the gentleman next to her — who apparently was a young business man from out of town — in an effort to get up her courage to ask him if he would mind trading seats with her friend. Finally she took the plunge.

"Pardon me," she said, "but are you alone?"

"Cut it out, kid," came the answer from the corner of the gentleman's mouth in a hoarse whisper. "Cut it out. MY WIFE'S WITH ME!"



HOLLAND FURNACE

Over a long period, Holland Furnace Company has conducted a "scare" sales campaign, forcing furnaces on people who did not need them and victimizing thousands of home owners. In 1954, the Federal Trade Commission began formal proceedings against the company. The company, however, kept fighting and it was 1959 before a Federal court issued a temporary injunction against the sales tactics cited in the FTC order. Complaints still continued and finally, in January, Holland Furnace and its former top management were found guilty of criminal contempt for violating a Federal court's temporary injunction. The corporation was fined \$100,000, the ex-president was sentenced to six months in prison, and two former vice-presidents were fined \$500.00.

This is the first time officers of a major corporation have been held responsible for the tactics used by their salesmen. Holland salesmen, often posing as inspectors of one kind or another, would inspect a furnace, take it apart, condemn it as unsafe, and refuse to put it together again. Then they would sell repairs which had not been needed, or a new furnace.

EXTRA CHARGES

"About two weeks ago two men came to our door and said my husband wanted our kitchen done over, so I let them in. When I called my husband, he said he didn't tell them he wanted it done. He had just asked what it would cost. I told them there wouldn't be any kitchen done until I got my bathroom in. One of the men said they could do that, too. We asked what the cost would be and told him to be sure to include any sales tax or finance charges, so we would know what the total would be.

"He said he could put in a bathroom and heating plant for \$2,660.00, including finance charges. We asked him three times if that included all charges and he assured us it did, so we signed the contract. To show that he was treating us right, he said he would put on the paper: 'No other payments than the \$2,660.00,' which he would spread out to five years. I asked him again about the finance charges in the contract, and he said that was in the \$2,660.00 and not to worry about it.

"After they left, my husband and I read it over again, and he had put \$65.73 a month for five years, which comes to \$3,922.00. He had lied to us. We are not rich people and cannot afford that much money. The next morning I phoned and told them we couldn't go through with it, but they said they had a lawyer who

American Agriculturist, July, 1965

SERVICE BUREAU CLAIMS RECENTLY SETTLED		
NEW YORK		
Miss Mame E. Horton, Nichols		\$18.81
(refund on order)		
Mr. Alexander Whittaker, Gouverneur		40.15
(insurance refund)		
Mrs. Henry T. B. Loomis, Chatham		2.00
(refund on order)		
Mrs. Everett Akey, Hamlin		25.80
(refund on order)		
Mr. & Mrs. Clarence Van Winkle, Nichols		1,181.30
(insurance settlement)		
Mr. Walter O'Mara, W. Monroe		3.00
(overpayment refunded)		
Mr. Roy C. Roll, Akron		52.40
(payment for hay)		
Mrs. Donald Popp, Leicester		150.00
(settlement for heifer)		
Mr. Ernest Preston, Fillmore		220.00
(settlement for hay)		
Mrs. George Corey, King Ferry		3.49
(refund on handbag)		
Mr. Daniel P. McCarthy, Saranac Lake		199.95
(refund on stereo)		
Mrs. Alex Fearnley, Troy		6.98
(refund on moccasins)		
PENNSYLVANIA		
Mr. Leslie D. Van Noy, Troy		1.83
(payment for coupons)		
Mr. Raymond E. Richards, Mountain Top		2.95
(refund on moccasins)		
Mr. George C. Taylor, Philadelphia		25.00
(claim settlement)		
MAINE		
Mr. Clarence Buzzell, Norridgewock		\$51.00
(payment for trees)		
Mr. Richard Anderson, Hollis Center		8.00
(refund on bulbs)		
Mr. H. P. Damrell, York Harbor		2.00
(refund on subs.)		
VERMONT		
Mr. Loren Aither, Hyde Park		10.00
(payment for potatoes)		
Mrs. Aurea B. Kistler, Alburg		5.00
(refund on subs.)		
CONNECTICUT		
Mrs. Jacques Waldorf, Roxbury		13.21
(refund on coat)		
RHODE ISLAND		
Mrs. Wm. J. Haelsen, N. Providence		2.25
(refund on envelopes)		

would make us take it.

"They haven't delivered any material yet and they won't put anything on my land if I can help it, but yesterday we had a letter from a credit corporation saying they had our note, and payments should be made to them. I called them right away and told them that if they gave the company any money, it would be their loss because I had cancelled the contract. They said that was none of their concern; that it was between me and the company I signed the contract with. Is there any way we can stop them?"

If these additional charges for financing appeared on the contract, and you signed the contract, you can be held to it. We checked on this company and were told they had been in business for a long time and were considered reputable.

If, however, you signed a contract in blank, in which the agent later filled in the amounts, that is a different matter. Such an action on the part of the agent would be against the law.

ADDRESSES WANTED

Miss Ida Passenger, formerly of 425 Clinton Ave., Albany, N.Y.

Clara Burkhardt and Ida Lienvander, formerly of Woodhaven, L.I., N.Y.



Mr. Louis A. Stilwell of Interlaken, N. Y. was throwing down straw from the mow of his new barn. When he stepped on a trap door it broke, and he fell through, landing on the concrete floor many feet below. A broken hip, arm and injured eye put him in the hospital for 46 days. North American protection paid medical expenses and weekly income. Local agent, Raymond Ennis delivers checks for \$1,407.50.

OTHER BENEFITS PAID

Alton D. Dunlap, Cuba, N.Y.	\$ 266.68	Hilda Harris, Oneonta, N.Y.	\$ 158.58
Caught in moving shaft—cut ear, broke ribs		Fell—inj. ankle	
Merton Armison, Fillmore, N.Y.	396.96	Linda E. Wood, Lisbon, N.Y.	200.00
Draw bar dropped—broke foot		Thrown from horse—broke shoulder	
Ella Jorgens, Endicott, N.Y.	285.71	Ronald Sulem, Sloansville, N.Y.	173.57
Thrown from mowing machine—inj. leg		Playing baseball—broke arm	
Clarence Liebler, Little Valley, N.Y.	305.56	Charlotte J. Roese, Schoharie, N.Y.	210.00
Caught in pump pulley—severe hand injury		Kicked by cow—broke wrist	
Albert B. Meacham, Randolph, N.Y.	611.25	Carl States, Odessa, N.Y.	101.07
Kicked by cow—broke knee		Cranking tractor—broke wrist	
Charles Crow, Genoa, N.Y.	458.21	Ruth L. Burke, Naples, N.Y.	250.53
Auto acc.—inj. shoulder, thigh, rib		Slipped and fell—broke wrist	
Joanne E. Young, Ellington, N.Y.	138.24	Clarence Osmin, Rexville, N.Y.	1136.55
Thrown off horse—broke rib		Fell from hay mow—broke back and wrist	
Ethel Todd, Jamestown, N.Y.	396.33	Steve J. Doroski, Southold, N.Y.	819.32
Fell on walk—broke wrist, inj. elbow		Caught in conveyor belt—broke hand	
Anna Byrski, Horseheads, N.Y.	223.64	Orvis Schuman, Callicoon, N.Y.	142.86
Auto acc.—inj. head, chest and knee		Cranking tractor—broke shoulder	
Alvan Hill, Greene, N.Y.	661.60	Howard M. Chrisfield, Spencer, N.Y.	600.64
Stepped on by cow—broke ribs		Saw kicked back—broke knee	
Stanley J. Wilk, Cortland, N.Y.	110.00	Wilfred Marion, Brooktondale, N.Y.	294.25
Wrench slipped—broke finger, inj. hand		Caught in blower—broke arm	
Ray Weaver, Andes, N.Y.	237.84	Morris Sims, Kerhonkson, N.Y.	635.00
Truck accident—inj. chest, wrist		Truck accident—broke back	
Wilton Hamman, Lawtons, N.Y.	569.85	Chester O. Briggs, North Rose, N.Y.	418.20
Kicked by cow—inj. neck		Kicked by horse—broke hand	
Sherwood A. H. Smith, Johnstown, N.Y.	249.50	Lois C. Porschet, Sodus, N.Y.	864.31
Struck by car door—inj. knee		Auto acc.—broke shoulder, chest, knee	
Walter Kruszelnicki, Darien Center, N.Y.	1090.70	Francis Romesser, Johnsonburg, N.Y.	268.10
Auto acc.—multiple injuries		Kicked by cow—broke rib, inj. chest	
Mary J. Bono, Frankfort, N.Y.	624.96	Charles E. Jennings, Millerton, Pa.	140.38
Auto acc.—inj. back & wrist		Truck fire—burned arms	
Lloyd Mordie, Chaumont, N.Y.	689.25	King Leonard, Gillett, Pa.	114.28
Fell off tractor—inj. knee		Fell from tractor—inj. knee, leg	
Ethel Hall, Lowville, N.Y.	300.71	Claude Eldred, Honesdale, Pa.	441.42
Auto acc.—whiplash injury		Kicked by cow—broke wrist	
Adolph Kopack, Port Leyden, N.Y.	457.70	Hazel D. Williams, Newton, N.J.	514.77
Slipped from roof—inj. back		Auto acc.—inj. back	
Robert Wachholder, Mt. Morris, N.Y.	146.42	Blanche F. Harris, Sussex, N.J.	565.56
Fell from wagon—inj. shoulder		Fell on rug—broke ankle	
Robert Wachholder, Jr., Mt. Morris, N.Y.	100.00	Helen Davis, Burlington, N.J.	553.63
Kicked by cow—inj. back		Auto acc.—cut face, inj. chest	
Fred G. Harris, Eaton, N.Y.	1148.05	Josephine Longstretch, Woodstown, N.J.	489.00
Crushed by heifer—broke back		Fell—broke arm	
Howard Porsay, Rochester, N.Y.	571.28	Walter Polhemus, Cream Ridge, N.J.	332.84
Fell off tractor—internal injuries		Thrown while drilling—broke back	
Hugh Hutchinson, Amsterdam, N.Y.	134.50	Neal B. Sanderson, Whatley, Mass.	157.14
Caught in field chopper—cut hand		Kicked by cow—broke back	
Frank M. Felshaw, Remsen, N.Y.	250.00	Genieve Gutkowski, Greenfield, Mass.	251.80
Thrown from tractor—inj. knee, back		Slipped and fell—broke wrist	
Ralph L. Hunt, Camillus, N.Y.	260.00	Bruce L. Soule, Waldoboro, Maine	650.36
Pushed by heifer—broke wrist		Auto acc.—broke leg, inj. knee, elbow	
Thomas B. Powers, Holcomb, N.Y.	325.50	Frank D. Adams, Charlestown, N.H.	314.00
Fell from ladder—broke arm		Slipped pulling on wrench—inj. back	
Peter Drenth, Slate Hill, N.Y.	125.00	Wilbur M. Reney, Grantham, N.H.	147.00
Kicked by cow—broke rib		Fell from ladder—broke leg	
Nathan Frank, Albion, N.Y.	835.65	Ernest Hendrickson, Fitzwilliam Depot, N.H.	105.00
Kicked by heifers—inj. chest, leg		Truck accident—cut face, broke knee	
John J. Torrese, Fulton, N.Y.	284.00		
Fell into a hole—inj. back			

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)

THE NORTH AMERICAN COMPANY
FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)
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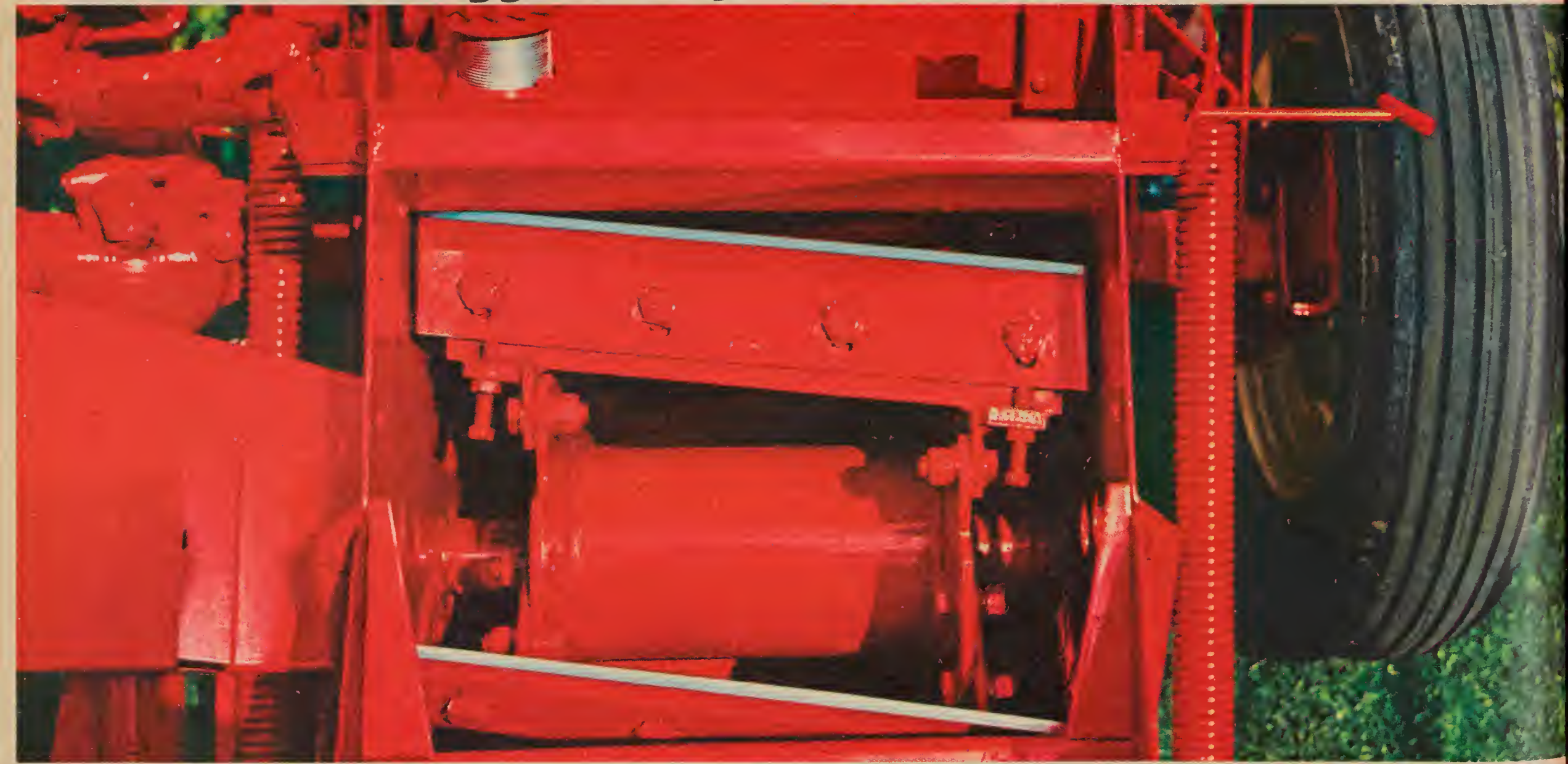
SAVINGS BANK BUILDING ITHACA, NEW YORK

Keep Your Policies Renewed



See New Holland's **NEW Forage Harvester 717**

...ruggedest cylinder cutterhead in its class!



From first load to last, New Holland's brand-new "717" cuts short and clean—perfect even for bottom-unloading silos! One reason: Big 24-inch cylinder cutterhead slices as fine as $\frac{1}{4}$ -inch with six knives . . . or $\frac{3}{16}$ -inch with nine knives. ■ And built-in sharpener helps you keep the blades factory-sharp with exclusive automatic stone advancement—no hit-or-miss manual adjustments! ■ Heavy steel plate backs each knife, protects cylinder in tough cutting. See your New Holland dealer. New Holland Machine Company Division of Sperry Rand Corporation.

NEW HOLLAND
"First in Grassland Farming"

AUGUST 1965



American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER



FARM EQUIPMENT FIELD DAYS

FARM
POWER
on the
MOVE

AUGUST, 11-12, 1965



**Purina is proud of
J. G. (Red) Stecher...
known in the
Adirondack area
of New York as**

the man in the Checkerboard tie

The character of our business makes it a human force business. That's why we feel our people and our philosophy of doing business are even more important than our organizational structure and our physical properties.

We have always put great emphasis on the quality of our people, and for more than 70 years it has been our philosophy that we deserve to grow and prosper only so far as our products and services help our customers grow and prosper.

That's why Purina is proud of J. G. (Red) Stecher, our man in the Checkerboard tie in the Adirondack area of New York. Red knows what it takes to make money with livestock and poultry. For 18 years with Purina, he has made it his business to find out, because, in our business, the customer is "The Boss." We must serve and satisfy him.

Red headquarters at Glens Falls, New York, known as "Home Town, U.S.A.," and works with Purina dealers

and farmers in the counties of Warren, Washington, Essex, Saratoga, Greene, Albany, Schenectady, Columbia, Rensselaer, and parts of Franklin and Montgomery counties in New York.

Since joining Purina, he has never stopped learning how to give farmers the kind of advice, service, and leadership it takes to help make money with livestock and poultry. To this Red is dedicated.

Yes, Purina is proud of Red Stecher, and the part he plays in the growth of the agricultural economy in his area. Like all the men in the Checkerboard tie, he wants to see his customers prosper. These men all have one thing in common . . . they serve. And so does Red Stecher and the man in the Checkerboard tie in your part of the state.



Typical of the products which come to you through your man in the Checkerboard tie is Purina's new Golden Bulky, built especially to help dairymen get top milk production and improve body condition. It's a great supplement for pasture . . . makes rations more palatable . . . builds dry cow and heifer condition . . . and makes fussy, high producers eat more. Your local Purina salesman is the man to see for further details on this fine new product. Ask him for a 30-day Golden Bulky Test Kit, including a free bucket and record card:

RALSTON PURINA COMPANY
Checkerboard Square • St. Louis, Missouri



**PURINA
CHOWS**



American Agriculturist
and the
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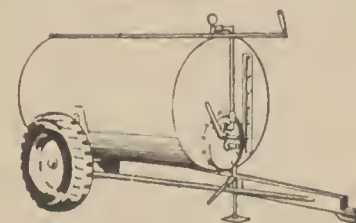
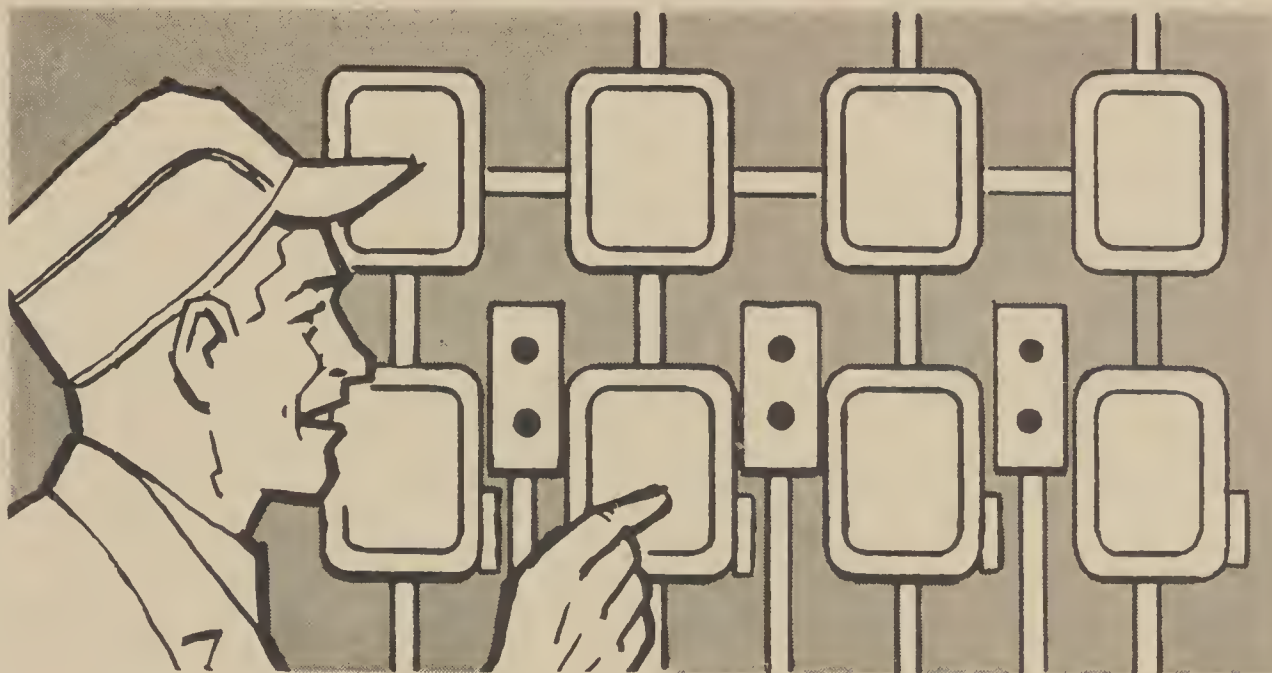
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OUR COVER

In recent years, the substitution of machines for muscle has been a flood tide sweeping the fields and farmsteads of the Northeast. See the mechanization wave of the future ... and enjoy some popcorn while you visit with your neighbors ... at the big event on August 11-12. Details on pages 24 and 25.

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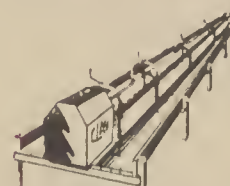
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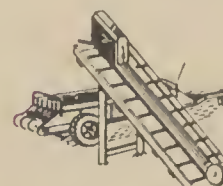
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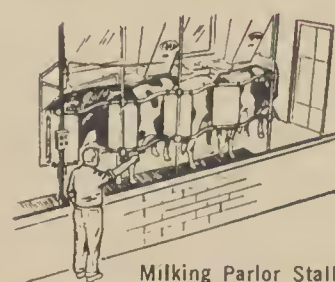
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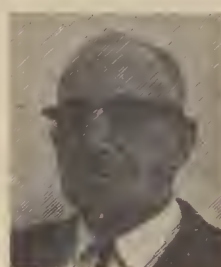
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Your local Clay Farmstead
Equipment Specialist is a good man
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EDITORIALS

by GORDON CONKLIN

THE SQUARE ONES

Fortunately for our nation, we have had a lot of "squares" who helped shape our history. They believed in some principle so deeply that they risked their lives on its behalf. I got to thinking the other day what some of them might have said if they had met their time of testing amidst our modern society, where individuals all too often avoid involvement in situations that might become dangerous or embarrassing.

For instance, Nathan Hale might have pleaded as he stood in the shadow of the British noose, "I'm just following orders; don't blame me for the decisions of my superiors! Besides, I shouldn't be held responsible because I had a traumatic experience as a boy when my parents didn't treat me fairly, and I have resisted authority ever since. I never did go for all this flag-waving jazz, but I have to make a living some way . . . and the earnings from this spy business are nontaxable. Why make an example of me when everyone else is doing it?"

Paul Revere might have thrown another log on the fire and grumbled, "The government should do something about those blasted Red Coats! Oh well, it's none of my business . . . that's what public officials are for, to worry about things like that. Wonder if all this hullabaloo will hurt the copperware business . . . sure hope not!"

And Abe Lincoln, the Great Emancipator, might have said, "Human slavery has been severely criticized by some, but after all, it has been practiced for thousands of years in many parts of the world. This Administration has decided to set up a task force in the near future to study the problem and come up with recommendations. It's our intention to weigh carefully every possible economic and social instability that might result from hasty action in this highly sensitive area."

Reading the pages of history, I conclude that "squares" like these . . . and what they really said and did . . . are essential to the forward movement of civilization.

PEOPLE PROGRAM

Across the thirty years that government has been working on the "farm problem," about 80 percent of the benefits from those programs have gone to the top 25 or 30 percent of all farmers (those with sales of \$10,000 or more annually). Figures for 1963 show that farms selling products worth \$10,000 or more in that year garnered 78 percent of all government subsidy payments. The farms selling less than \$5,000 worth of products in that same year (56 percent of the total number of what the census calls farms) received only 9.3 percent of the total government payments.

It looks sometimes, political oratory to the contrary, that our past farm programs have actually encouraged the movement of people out of agriculture. This is because they have provided the larger producer some guarantee of income, which in turn enabled him to use his capital to increase his holdings. More than 23 million farm people have been involved in net migration off farms since 1940.

It's political dynamite to propose programs that will assist farm people in coping with the problems of such a massive migration . . .

dynamite because some people immediately raise the hue and cry that, "You're trying to get rid of farmers!" It's a bit like the man who was accused of being anti-social because he helped a guest fix a tire so he could get on the road.

Political leaders wrap up all farms in one ball of wax, then develop programs "that will preserve the family farm." Unfortunately, they don't separate the economic problems of the good-sized family farms from the social problems facing those families on operations that aren't sizable enough to provide satisfactory incomes . . . even if farm prices were at 300 percent of parity. So, the laws written as a result of all that deathless oratory benefit most the farmers already in the best position to move ahead.

It seems logical to approach the short-run economic problems of commercial farmers with "floor" price supports that prevent huge losses when drastic price breaks come . . . plus a sizable land retirement plan for long-range adjustment of surplus production resources in agriculture. The land retirement plan could also grease the wheels of social upheaval facing farm families who will be leaving the farm within the next decade. Political dynamite or not, realistically to help many farm families involves assisting them to leave farming, rather than prolonging the agony. There are many farming marginal soils, with units too small to compete, or where the operator is at an age where he just can't plunge into borrowing a lot of capital to enlarge his business.

A land retirement program involving whole farms would allow such families to get out from under without going through the financial wringer. And it would be a start on splitting the "farm problem" into its two parts so that programs could have clear-cut objectives . . . rather than being designed with the purpose of making political hay, and ending up actually accomplishing something other than what its bill of goods promised.

Dairymen's League President Lester Martin's plan to empower the government to compensate any dairyman who completely retires from milk production points in the same direction. I'm for providing some public help to smooth out a bit the rough edges of being forced by competitive economics to look for other employment than marginal farming.

EVER-NORMAL MORTGAGE

One of the things farm families have to get over is the idea that to be in debt is almost sinful. For many generations, one of the most compelling goals of farmers has been to own their farms free and clear.

But now the once modest investment on the typical farm has skyrocketed to the point where it may not make sense to try to retire all debt during one lifetime. Seasonal operating expenses are so large that most farmers must borrow on a short term basis, rather than try to build their own temporary funds for peak needs.

Furthermore, the changing marketing patterns for farm products is demanding investment by farmers in their own marketing structures. If a family is putting every spare nickel they can lay their hands on into paying off debts, they have no capital to put into marketing ventures. Make no mistake, farmers

cannot expect to control an organization unless they own it.

Economists pretty generally agree that the closer the seller's activities come to the ultimate consumer, the more stable become net margins. Here's an opportunity for farmers to gain greater bargaining power . . . if they are able and willing to risk their own capital.

The successful businessman, farm or otherwise, knows how to spend money to make money. Capital is pretty generally available to men who can demonstrate this ability . . . something called "management."

But let's not grit our teeth and vow that we'll never take a vacation until the mortgage is burned. Maybe the best thing to do is always have a mortgage!

BRAINSTORMING INVITATION

Ever been in a brainstorming session? The ground rules are simple . . . pick a tough problem that is crying for a solution, then have a group of people sit around a table and ask each one to toss out any pertinent ideas. One inflexible understanding is that nobody will laugh or object to any idea, no matter how hare-brained it may first appear. At least two or three really good suggestions usually result from such sessions.

We've all got a problem in this Northeast of ours . . . how in heck we can do something constructive about the endless numbers of junk automobiles littering the land. Drive down most any road and you'll see them, ranging all the way from two or three clunkers in the backyard up to acres of rusting eyesores.

I'm told that some modern steel furnaces can't economically digest automobile scrap iron unless it has first been pelleted. I'm also told that New York State alone has something like a million cars being junked every year . . . most of them to be added to the graveyards that despoil open countryside, villages, towns, and cities alike.

Let's hear your ideas on how to come to grips with this one. It's my nomination for our number one scenery problem.

LIVING LONGER

I receive some letters bemoaning the passage of the good old days when nobody used pesticides . . . letters that often paint a picture of horror, claiming we're all being poisoned.

Obscured by all the hullabaloo over the use of farm chemicals are facts about average life expectancy. The life expectancy of a child born in 1900 was 48 years; in 1960 it was 70 years.

The life insurance industry is making a shift to the "1958 CSO" mortality table . . . a shift which will be mandatory for all companies by January 1, 1966. This table supersedes the "1941 CSO" table and reflects increased longevity and fewer deaths per thousand of population of all ages.

Enjoy a good, wholesome cigarette while you write that letter to the editor about the alleged cancer-causing pesticides!

MILK CONSUMPTION

Total milk production in the United States increased only seven percent between 1947 and 1963. During that same period, sales of whole milk to all dealers and plants jumped by 57 percent!

There were sharp reductions in the total quantities of milk used for farm household consumption, for cream separated at the farm, and for feeding calves. So, the milk "surplus" hasn't been caused entirely by expanding production . . . some of it has been a result of lower on-the-farm use.

American Agriculturist, August, 1965

Because You Don't Drink—
You Can Apply For This

LOW-COST

GOLD
STAR

HOSPITAL-

SURGICAL PLAN

only \$1

READ THESE 20 IMPORTANT REASONS WHY YOU NEED THIS PROTECTION

1 What Will This Gold Star Plan Pay Me When I Am Hospitalized?

This plan (#NLLE 71064) will pay you up to \$10,000.00 for each stay in the hospital, at the rate of \$10.00 a day for up to 1,000 days—almost three full years!

2 When Do These Benefits Begin?

The very first day you are hospitalized.

3 What About Pre-Existing Conditions?

Any new condition is covered immediately, of course. And, in addition, after your policy has been in continuous effect for just two years, you are even covered for fifty days' hospitalization—plus full surgical benefits—for pre-existing conditions! This extra coverage, not usually available at all, is a Gold Star bonus!

4 How Much Will This Policy Pay Me for Surgical Expenses?

Up to \$200.00, according to the schedule printed right in your policy.

5 What Are Some Examples from This Schedule?

For the following, you would be paid these amounts:

Treatment of Fractured Arm \$ 50.00
Appendectomy \$100.00
Gastrectomy \$200.00

In the unlikely event you should require more than one operation during the course of any single hospital

confinement, sickness or injury, Gold Star will pay you the maximum benefit specified for the most expensive one. And, of course, it's all tax-free cash!

6 What If I Receive Surgical Treatment Outside the Hospital—Would I Still Be Paid?

Yes. Your policy provides for payments of up to \$200.00, regardless of whether the surgery is performed in or out of the hospital!

7 Can I Collect from Gold Star Even if I Carry Other Insurance?

Of course. This plan will pay you in addition to whatever you may receive from any other policies, including Workmen's Compensation.

8 Why Do I Need This Gold Star Plan in Addition to My Other Hospital and Health Insurance?

While hospital costs have tripled in recent years, very few people have tripled their insurance. The chances are one in seven that you will be hospitalized this year—and you will need money to take care of all your other expenses, as well as your hospital and surgical bills. Your Gold Star checks are rushed to you air mail to use as you see fit!

9 May I Apply if I Am Over 60?

Yes. Folks through age 75 are welcome to apply.

10 Suppose I Am Close to 75 and I Join Now. Will I Automatically Be Dropped When I Become 76?

No. Once you are in the Gold Star Plan there is no automatic age limit.

11 Will My Protection Be Cancelled Because I Have too Many Claims?

No. Gold Star guarantees never to cancel your protection because you have too many claims or because

LEADING AMERICANS SAY:



GEN. W. K. HARRISON, U.S. Army (Retired): "In my long experience in the Army, I have sadly observed the deadly effect of the use of liquor. I see no reason why non-drinkers should help pay the high costs of insurance due to liquor. After examination of the Gold Star Plan and its operation, I am convinced that it is effectively achieving its objectives."



HON. KARL E. MUNDT, U.S. Senator, South Dakota: "Since health statistics indicate that alcoholic beverages have proved detrimental to the body, I believe the Gold Star Plan makes good sense and enables non-drinkers to receive insurance at rates which recognize that those who abstain from alcohol provide an improved actuarial risk."

GRATEFUL POLICYHOLDERS WRITE:

Edward L. Tompkins, MILTON, ILLINOIS: "It is a privilege and a pleasure to be a member of the Gold Star Family. I have called upon them four times in the past three or four years and received full benefits each time."

Mrs. Lucy E. Walters, TRONA, CALIFORNIA: "Your prompt disposition of my two claims within a year has more than justified my expectations. They were taken care of in the exact manner that you advertised. Thank you."

William McK. Spierer, MANHASSET, NEW YORK: "Of all the types of coverage I carry, only yours took into account major medical bills both in hospital, and after. Delighted I joined your plan. Every eligible person should be a member."

Mrs. Eleanor H. Reed, MIAMI, FLORIDA: "In my opinion, the Gold Star Insurance Plan is the greatest thing that has ever happened. It definitely rewards those who are total abstainers. The charges on the policies are so reasonable and the amount of coverage is so generous."

Kendall E. Garriott, MANSFIELD, OHIO: "You were very punctual (same week!) in paying our claim. With a family the size of ours, this prompt check from you made a great deal of difference. In fact, because of it, we met our obligations on time."

Mrs. Lillian Windnagle, BERGLAND, MICHIGAN: "I never in all my 71 years have had any insurance company deal any more fair with me than De Moss Associates have. No red tape or stalling. I'm ever so grateful to you for your fairness and honesty."

Andrew C. Teachman, MATAMORAS, PENNSYLVANIA: "I was both surprised and delighted at the promptness with which my claim was paid. No quibbling, no nonsense; just a check for the full amount a week after I turned the claim paper over to my doctor for his report. It is the simplest claim paper I ever made out for anything."

Mrs. Maysel Elva Glenn, MESQUITE, TEXAS: "I have just received my check by air mail. This was paid within one week from the time I sent my claim in, which is remarkable. Also, your fast, efficient service has been given my husband on four different claims for himself within the past year. I highly recommend this company."

Over 25,000 Claims Paid in 1964!

Gold Star Insurance Policies, available, effective and paying claims in all fifty states and many foreign countries, are underwritten by NATIONAL LIBERTY LIFE INSURANCE COMPANY, VALLEY FORGE, PENNSYLVANIA. A pioneer and the world's largest underwriter of health insurance for total abstainers. National Liberty Life is licensed solely under the laws of the Commonwealth of Pennsylvania and carries full legal reserves for the protection of all policyholders.

of advanced age. We also guarantee never to refuse to renew your policy unless renewal is declined on all policies of this type in your entire state. Of course, if deception is used in making application, the policy may be ineffective. This is another way Gold Star protects honest folks who don't drink.

12 Will My Benefits Be Reduced Because of Advanced Age?

No. Regardless of how old you become or how many claims you have, your benefits remain the same.

13 What Is not Covered by This Policy?

The only conditions not covered are those caused by the use of alcoholic beverages or narcotics; mental or nervous disorders; pregnancy; or any act of war. Everything else is covered!

14 What Are the Requirements for Membership in This Gold Star Plan?

You must not drink alcoholic beverages; you must have had no previous rejection of any application for health, hospital, or life insurance; you must not have been advised to have an operation which has not yet been performed; and, to qualify during this enrollment period, you must apply before midnight Friday, September 3, 1965.

15 Why Is This Offer Good for a Limited Time Only?

Because in this way we can utilize group insurance principles and pass the savings on to you.

16 Besides the Savings, Are There Other Advantages to Joining Gold Star During This Enrollment Period?

Yes. A very important one is that you do not need to complete a regular application—just the brief form shown below. Also, during this enrollment period there are no other requirements for eligibility—and no "waivers" or restrictive endorsements can be put on your policy!

FOR YOUR FIRST MONTH'S PROTECTION

IF YOU APPLY BEFORE
MIDNIGHT FRIDAY,

SEPTEMBER 3, 1965

WHEN THIS ENROLLMENT PERIOD ENDS

17 Can Other Members of My Family Be Covered?

Yes, as long as they meet the requirements listed under question 14.

18 How Much Does This Hospital-Surgical Policy Cost per Person?

Only \$1 per person for the first month, regardless of age! Thereafter, premiums for each member are as follows, depending upon age at time of renewal.

When your age is: Your monthly premium is:
0 - 39 \$ 2.78
40 - 59 \$ 5.47
60 or over \$10.35

19 When Will My Policy Become Effective?

At noon of the day we receive your completed application and special \$1 premium. Of course, it must be mailed before this enrollment period ends.

20 How Do I Join?

Fill out the application below and mail it, with just \$1 for each person listed, to: The Gold Star Plan, Valley Forge, Pennsylvania 19481.

TO QUALIFY DURING THIS ENROLLMENT PERIOD, YOU MUST MAIL YOUR COMPLETED APPLICATION BEFORE MIDNIGHT FRIDAY, SEPTEMBER 3, 1965!
SEND IT TO: THE GOLD STAR PLAN, VALLEY FORGE, PENNSYLVANIA 19481.
Be Sure to Enclose \$1 for Each Person You List on the Application.

APPLICATION TO NATIONAL LIBERTY LIFE INSURANCE COMPANY VALLEY FORGE, PA.
FOR GOLD STAR TOTAL ABSTAINERS HOSPITAL-SURGICAL POLICY #NLLE-71064

NAME (Please Print) _____ First _____ Middle Initial _____ Last _____ SEX ☐ Male ☐ Female ☐

ADDRESS _____ Street _____ City _____ State _____ Zip _____

AGE _____ DATE OF BIRTH _____ I also hereby apply for coverage for the members of my family listed below: (DO NOT include name that appears above.)

NAME	RELATIONSHIP	SEX	AGE	DATE OF BIRTH

Neither I nor any person listed above uses alcoholic beverages; has had any previous rejection of any application for health, hospital, or life insurance; or has been advised to have an operation which has not yet been performed. I hereby apply for the Gold Star Hospital-Surgical Plan, Form #NLLE-710-64. I have enclosed \$1.00 for each person listed above for the first month's coverage. I understand the policy is not in force until actually issued.

If, for any reason, I am not completely satisfied with this new protection—I may return my policy within ten (10) days for cancelling and my payment will be promptly refunded. If I decide to continue, I may do so at the special Gold Star rates for the attained age(s) at renewal date.

Date _____ NLLE-7A-10-64R

Signature

DUE PAID FOR COMPANY USE ONLY



◁ Hoist it high in a hurry with twin lift cylinders on the 36A Loader.

Raise the load limit with a "triple-talented" John Deere manure-handling team.

Skim over your manure-coated feedlot and watch the rear-mounted blade pile up time savings for your loading operation. Ram into the pile and lift big, full bites that heap your spreader with fewer dumps, less maneuvering. Play hard-to-catch on your way to the field with up to 185 bushels on a husky spreader, and unload at 6 mph. You can raise the load limit all three ways with a "triple-talented" John Deere Spreader, Loader, and Blade.

Heap it on and haul it fast with a John Deere Spreader. They're designed to work as smoothly in January as they do in July, and there's a model to match your feeding or dairy operation exactly. If you need a sure-footed, PTO-powered spreader for hauling in mud or snow, and you like an aggressive single beater that eliminates wrapping problems, choose a 139-bushel 33 or a 185-bushel 44 Spreader. Farmers with automatic barn cleaners or overhead manure carts prefer the low-silhouette, extra-wide 33 Spreader. Commercial cattle feeders really appreciate the extra load-carrying capacity of the giant-size 44 Spreader. There are also two ground-driven models and two PTO-driven models with conventional triple beaters. You can choose



Here's the manure-handling team for big operations. Powerful 46A Loader . . . giant-size 185-bushel 44 Spreader . . . heavy-duty 80 Rear-Mounted Blade.



Use the economical 78 Blade to scrape off your feedlot.



You can really hustle with this 139-bushel 33 Spreader.

from 76-, 95-, 134- and 185-bushel sizes to match your operation.

Get the muscle you need to handle tramped-in or frozen manure in a powerful John Deere Loader. Each model has husky dual lift cylinders, a rugged steel backbone and responsive fingertip controls. Both the 36A and 46A have convenient step-on design to match the handy mounting steps and handholds on New Generation Tractors. The husky 45 Loader mounts quickly and easily on older John Deere Tractors, too. All these loaders save time with handy controls, wide-open view and quick drive-in mounting. They're built to take plenty of hard knocks.

Mount a John Deere Blade on your 3-point hitch, swivel it into the reversed position, and you're ready to pile up that layer of manure on your feedlot. Choose from two husky models, the economical 78 or the heavier-duty 80. You'll save time and add convenience either way.

Ask your John Deere dealer to demonstrate a "triple-talented" manure-handling team on your farm, soon. You can finance through his convenient Credit Plan and match payments to your income pattern.

JOHN DEERE
Moline, Illinois



BHL



Blank Page Digitally Inserted



SOME DRY HUMOR

WE ASKED readers back awhile for stories about just how dry it became in 1964 in their respective areas.

Charlie Riley of Sennett, New York, sent in an actual experience about drilling a new well. Both a professional dowsing and the driller used a twig to locate the best place, and both agreed! The drill hit limestone bedrock at eight feet, and then at 36 feet struck a large underground stream that furnished water for a 60-cow herd and two families without a sign of failing.

Turning to some of the tall stories, Elmer Patnode, Churubusco, New York, claimed that the trout were jumping on the stream banks to eat snow last winter. Kenneth Ellinwood of Candor, New York, claimed that he had his water tested last year and the report came back that it tested only 50 percent moisture.

Harry B. Savage, University Park, Maryland, and Kenneth Roadarmel of Syracuse both reported that it was so dry last year that the Baptists were sprinkling, the Presbyterians were using a damp cloth, and the Episcopalians were giving a rain check!

From Greig, New York, Eugene Patterson claimed that one piece of corn reached right through to China desperately seeking moisture.

New England

Jeanie Begg, Plainfield, New Hampshire, wrote of 1964: "All spring and summer we in this area saved all the water we could collect in our bathtubs, bathed in wash basins, and saved the murky residue for trying to keep flower plants alive and to make vegetable seeds germinate and grow. Lawns were abandoned to become Saharas.

"This summer, we're planning to emulate our poultry and take to dust bathing! There will be plenty of that in the garden . . . given privacy, we might even take our baths out there!"

Over in the Bay State, Newton Gottshall of Framingham Centre reported that the dew was dusty in his area. Linton Buck, Ashaway, Rhode Island, claimed that the potato bugs committed suicide because the plants weren't worth eating. He went on to say that the water in the nearby Pawcatuck River was so low that fish were swimming on their sides and spitting pure dust . . . he decided that this was how the flat-fish species got started.

Walter Fischer, Joppa Road, Maryland, claims that he had to make a new well so deep that it takes three days to hear the splash

from a stone dropped into it.

On a more serious note, J. Kleiner, Hightstown, New Jersey, wrote and said that he piled snow all winter during 1963-64 on his garden in an attempt to put extra moisture in the soil, but it didn't seem to make much difference for the 1964 growing season. He said, "It seems that even in the atomic era we still depend on the old-fashioned methods . . . moderate rains in proper time."

Thanks to all the folks who wrote in response to our invitation.

RUSSIAN AGRICULTURE

I was occupied in agriculture in Russia at one time as an assistant manager on a 10,000-acre estate where the major crop was sugar beets. The best-qualified people were annulled by the blind leaders through chaos and hatred toward each other.

Presumption and ignorance took over the country and have prevailed until now; this is the reason for shortages in food, even in such a rich agricultural country as the Soviet Union. This will surely be noted by future historians as a gloomy era. The adopted godless system couldn't help them either. — J. Kleiner, Hightstown, New Jersey

WAR!

War in Viet Nam; war on poverty; war on crime. These wars share the headlines of our papers and are the subject of many magazine articles. However, the war which is being waged most relentlessly and most successfully does not appear in headlines; this war may well be called the "War on Agriculture."

It is being waged by advisors

in the Department of Agriculture, who should be interested in the welfare of farmers and agriculture but apparently couldn't care less. It is being waged by those in the Labor Department who apparently know nothing about agriculture, but who find plenty of support from an administration which feels much indebted to organized labor.

Programs which are undesirable to farmers are passed against their wishes. They are forced to rely on help rejected by other employers and, if the full truth were known, that does not actually exist except in the records of the statistician or welfare rolls. An unemployed force of four million people who do not want work, or are unable to do hard farm work, does not fill the need of the farmers.

I have long felt that our government has leaned over backwards to provide a happy hunting ground for other than farm operators. Wildlife is protected at the expense of farmers, often in greater numbers per acre than the farmer would consider advisable for his pastures.

Recently in a picture published in the "Conservationist" I counted forty deer in a small area of an orchard. They had just finished the complete destruction of a beautiful young peach orchard. I know the magnitude of the loss because it was my peach orchard.

Billions of dollars are spent on agriculture; the public is led to believe this to be mainly gifts and subsidies to farmers. Most of the dollars, however, do not end up in the pockets of farmers, but go to maintain and improve our national forests and literally hundreds of programs which are for the benefit of the general public. However, since the farmers are not organized, they make very good whipping boys.

Wars cost money . . . it would seem that one of the main reasons for war is to spend money. Food costs are extremely low (especially the farmers' share) in comparison with other items.

If food costs were to increase, we would find an increase in our Gross National Product . . . the main goal of all good politicians. It matters not that the value of the dollar on which the G. N. P. is

based has decreased as much as the G. N. P. has increased. They can still point with pride to the increased economy even though it is bought with borrowed dollars and unpaid bills.

So it all adds up to the fact that perhaps the farmer is not doing his share. After all, "War is Hell." — Harland M. Poyer, Ithaca, New York

FROM THE TIMBERLINE

Life with a two-year-old is never dull, as any mother knows. One morning I came into the kitchen to find that Matthew (hereinafter referred to as "The Terror of the Timberline") had gotten the vitamin drops out of the refrigerator and had apparently finished off the bottle.

I had read that these drops could be dangerous in large doses, but had no idea how many would be considered too large a dose. So, to the trusty phone and a quick call to the Poison Control Center in Rochester with some anxious questions. They reassured me that the amount he had taken of this type of drops was not dangerous.

But how wonderful to know they are there with the answers! And they really have the answers, too. Some years ago our older daughter had spent the morning in the field where her father was planting wheat. When they came in for lunch he discovered that she had been nibbling on the treated wheat.

This time the doctor at the Poison Center advised us to bring her to the hospital. While we were on our way (about twenty minutes) they had contacted the place where we got the seed, called their supplier to find out exactly what the chemical was, and had equipment set up to give any necessary treatment. Here again we had a happy ending; no stomach pumping was needed . . . to her delight . . . but I decided then that I would always know how to reach them. In fact, I think every home should have the number posted. They really don't receive much publicity, but I think that your county health department, or perhaps your own doctor could tell you where there is a Poison Center in your area.

Incidentally, don't be alarmed if you're some distance from the Center. If you can reach them by phone, they will relay instructions to you, to your doctor, or to the hospital nearest you while you are on your way to the hospital with the child.

One more word on this. If you do have occasion to call a Poison Control Center, it's a good idea to have the container or at least the label close at hand. The Centers have files showing the ingredients of many common products, but with others they may want you to read the label for exact contents. As I said, we've had two happy endings, but in both cases it was wonderful to know that help was so close at hand. — Mrs. Dora M. Coates, Mount Morris, N.Y. *American Agriculturist*, August, 1965

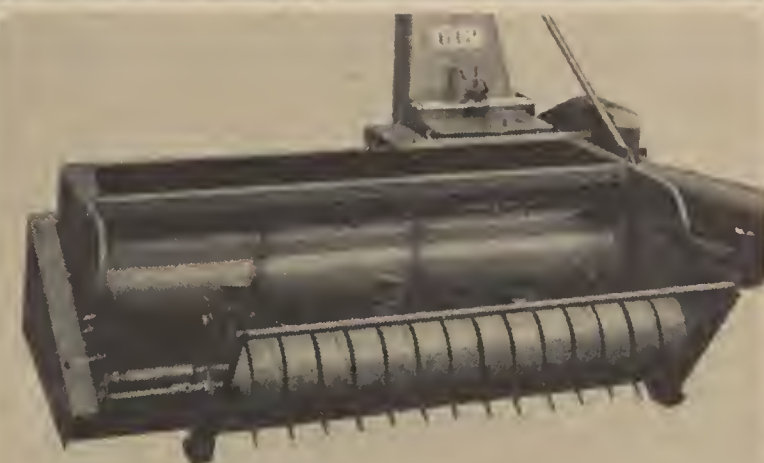


Two mobile trailers have been purchased by the congregation of the Emanuel Evangelical United Brethren Church of Laona, New York, two miles south of Fredonia.

This is believed to be the only church . . . or at least one of a few in the nation . . . utilizing mobile trailers as Sunday school classrooms.



Direct cut. Basic unit includes a 6-foot cutterbar for simplified green chop harvesting.



Pick up. Installation requires four bolts, ten minutes time to install. Nothing to remove. Effective width: 5 feet.



Row crop attachment has no moving parts, no maintenance. Handles row spacings from 32 to 40-inches. Slip-on design: six pins, five minutes to install, nothing to remove.

Now, your chopper dollars buy more...NEW FORD 612

The Ford 612 forage harvester introduces an entirely new principle of design and operation to lower the cost of making quality forage. It brings forage harvester cost well within the reach of small to medium-size farms producing average yields of corn, sorghum and hay crops.

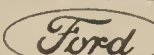
- **In value,** the Ford 612 is unsurpassed. Pick up and row crop attachments fit right over cutterbar of the basic machine. Nothing to remove. With Ford's design simplicity, the 612 has hundreds of fewer parts, low initial cost, and low operating cost. Its rugged construction provides lasting durability. It's a smart way to make your machinery dollars work harder.

- **In performance,** Ford's exclusive auger-over-sickle feeds crop smoothly and evenly to the feed rolls. Upper retractable-finger feed roll provides controlled feeding of material to the cutting cylinder. Team the 612 with a 10-speed power shift New-Size Ford tractor and you can forget field delays, avoid time-wasting plug ups, reduce your harvesting costs.

- **In feed quality,** you're way ahead with a Ford 612. Short, finely-cut silage packs tightly in the silo to keep its fresh, unspoiled value, and handles easily with mechanical unloaders. Cut-and-throw cylinder saves power. And with the 612 you can have either four or six cylinder knives for just the cutting length you want. A built-in knife sharpener is standard equipment—keeps knives razor sharp all season long.

**For heavy-duty chopping,
SEE THE FORD 605 FORAGE HARVESTER.**
Up to 40 tons an hour in row crops.

FORD

TRACTORS
PRODUCTS OF 
EQUIPMENT

The purpose of this article is to review briefly some of the background of this problem, the present situation, and the progress toward improvement.

The Problems

Many of our northeastern villages, cities, and metropolitan areas dump untreated sewage, or only partially-treated sewage, into our streams and lakes. Hundreds of millions of dollars will be required in New York State... equivalent amounts for other northeastern states... to build sewerage systems and sewage treatment plants for urban centers. An estimated additional 67 million dollars worth of treatment plants will be required for New York State industries outside of municipal areas.

Pest Control

What is worse, this material has an affinity for certain fatty tissue and tends to build up to lethal levels in many species of wildlife. One such movement of this pesticide through biological growth first concentrates in the tiny plank-

Drying Up?

Weathermen, perhaps more than most of us, know that we have cycles of drouth and of high rainfall. A recent report published in the Agricultural Engineering Journal states that a study of tree rings from the Great Plains (dust bowl) area, provides a history of both dry and wet periods from the year 1200. The only conclusion that could be drawn was that periods of drouth varied from 5 to 20 years, that there was no consistent cycle, and that this area had always recovered! That's still not much comfort if your well has gone dry and you must either haul the water or pay someone else to do so!

pumps the water is sparing of it” . . . is more truth than poetry. Many a well that never ran dry in the old days simply can’t keep up to the modern demands of the automatic clothes washer, garbage disposal unit, dish washer, two or three toilets, morning showers, and lawn sprinkler, plus frequent car washes.

Refrigeration

One of the very large needs for water is to cool our air, our electric generators, our refrigerated warehouses, etc. Generally, this water has been used but once and we allow it to waste into the sewers. More recently, we are being required in some areas to provide cooling towers (exchange the heat to the air), and to recharge underground aquifers with the used water. The demand for re-use will most certainly become greater.

The multi-use of water, land, and forests has only in the past few years become recognized. Unfortunately, it creates a host of problems because, seemingly, everything must be changed.

Farm manures carelessly spread on side hills draining to a water supply can create a nitrate problem that may kill infants. A large cruiser with a toilet or "head,"

Sewage or industrial wastes dumped into streams used for irrigation by farmers can contaminate vegetables or fruits eaten fresh. Such products as lettuce, celery, cabbage, or strawberries are commonly irrigated. Construction of large dams not only floods valuable crop land, but when water is drawn off at the bottom of the dam, being colder than the previous creek water, it creates a different environment for fish and stream plant life downstream . . . often for miles. These are just a few of the problems . . . not expressed in dollars.

Where to:

Probably the most important step is for each of us to learn more about this broad problem. To do so, we must “read up” on it so that we can view the problem as “the other fellow sees it.” Perhaps a few more illustrations will help:

If you live in New York City you want water like the rest of us, yet the facilities which provide a considerable volume of this water from up-state New York restrict to some degree the activities of sportsmen of that upstate area! In order to provide access to lakes by transient picnickers or boaters, governmental units are purchasing desirable sites that are thereby closed for residential use. Certain small lakes are being closed to power boating so that there may be greater use of the lake for other recreational purposes.

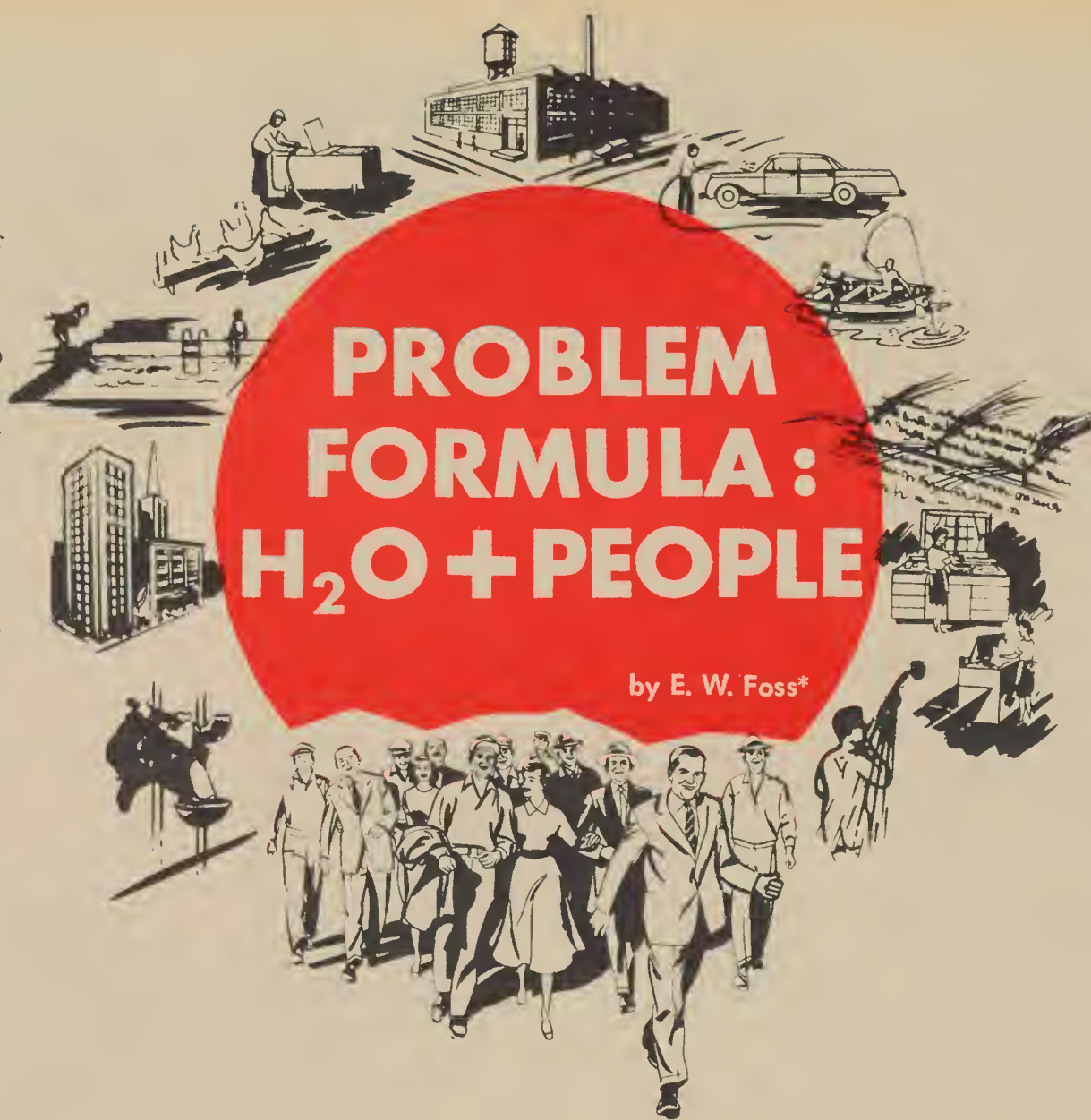
Perhaps the most widespread problem is the fact that we will all be required to pay more taxes to construct the dams, drainage ditches, sewerage systems, sewage treatment plants and other facilities. For farmers, the problem will not be easy, because as our population increases and chances for disease multiplies, state and county health departments will require ever-higher standards in our foods. The water for our cattle, crops, and processing will also be ever more closely checked.

While it would appear that each of us has little control over such a broad problem as "water," the fact is that many legislative acts call for "local action!" One of these is Public Law 566 . . . The Federal Watershed Protection and Flood Prevention Act. The USDA administers this through the Soil Conservation Service . . . which has offices in most counties. The small watershed districts, either within a county or over two or more counties, may conduct studies on the feasibility of project activity. After approval by state and federal offices (after hearings), federal and state aid is available.

For the larger drainage areas, there are a number of Commissions; many operating for a number of years.

The Great Lakes Commission
(Continued on page 12)

American Agriculturist, August, 1965



* Agricultural Engineering Department, Cornell University



This is Agway:

Challenge Feeding boosts herd average by 1,062 lbs.

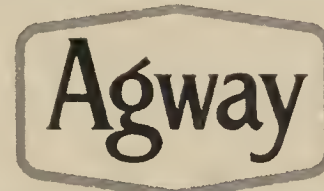
The Ardrossan Farms herd at Villanova, Pennsylvania, raised its average last year by 1,062 lbs. Production per animal at Ardrossan Farms topped every Ayrshire herd in the country, in the over-100-cow class.

Challenge Feeding—key step in the Agway Profit Feeding plan—and Agway Milkerpels, helped accomplish the record. Throughout Agway territory, more and more top producing herds are being challenge-fed according to PFP.

PFP can increase your profits, too. Seven out of ten cows in your herd could increase income-over-feed costs by 15 to 65 dollars this year.* This may mean the difference between a very profitable year for you, and a mediocre one.

*Agway originated the concept of Profit Feeding and challenging individual cows, in 1961. Since that time, actual DHIA records of some 12,169 PFP herds show that 7 out of 10 cows increased income-over-feed costs by \$15 to \$65 per cow when challenged and fed the Profit Feeding way.

Turn your herd into a top producer. Do it by challenging your cows with PFP and Agway Milkerpels, the high-energy, all-pelleted feeds that are fitted to your forage program. Ask at your local Agway for the details on the Agway Profit Feeding Plan. Agway Inc.



DAIRY FEEDS AND SERVICES

(Continued from page 10)

promotes the orderly, integrated and comprehensive development, use, and conservation of the water resources of the Great Lakes Basin including the St. Lawrence River. Both the states of the United States and provinces of Canada are included.

The Interstate Sanitation Commission regulates and controls the pollution of coastal and tidal waters of the states of Connecticut, New York, and New Jersey.

The Ohio River Valley Water Sanitation Commission is a compact of eight states to prevent and control water pollution. The states

are Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Tennessee and West Virginia.

The New England Interstate Water Pollution Control Commission is a cooperative agreement among all of the New England States plus New York to control pollution.

There are also interstate commissions for the Lake Champlain Basin, the Delaware River Basin and others. Many smaller basins within a state have also been set up, including the Genesee and Cayuga Lake within New York State.

Pure Water

Probably one of the most important steps you can take to be sure of pure water is to have tested

all new or suspicious water supplies. State, county, and private laboratories are available for this purpose. In all instances there is a prescribed procedure to follow, and only sterile laboratory sample bottles are used.

You have probably read about, and possibly are having difficulty with, the foaming problem which is caused by the so-called "hard" detergents. While this is a problem, it is also a good indicator of pollution! If your water has a new odor, appears oily, has a new color, is cloudy, or in any other way "is different" . . . don't hesitate . . . have it tested!

Secure from your state and county health department their regulations concerning spring

houses, pump houses, construction of wells, and constructions of septic tanks and the drainage fields. USDA publications and State Extension Service publications also provide reliable directions for many of these facilities and are available from your County Agent's office or State College of Agriculture.

To provide more water for stock and fire protection ask your County SCS Conservationist or Extension Agricultural Engineer for information and assistance to establish farm ponds . . . or small lakes.

More water treatment equipment is continually coming on the market. Publications from the Extension Service can assist you to learn more about equipment for water softening, filtering, removing minerals and gases, and adding chlorine, or chemicals to neutralize acids or alkalis. There is a wide selection of many kinds and sizes of piping, pumps, plumbing fixtures, and equipment for bathroom, kitchen and laundry.

Rural Planning

Many forward-thinking communities are restricting building lots in rural areas (beyond the reach of water and sewerage lines) to a size sufficient to assure a safe water supply and an adequate sewage disposal system. Too many real estate developers have jammed expensive rural homes into city-sized lots. The new owners have thereby too frequently reaped the bitter harvest of polluted water and lawns covered with sewage.

For rural homes too far from municipal water systems, the alternatives are either spacing the homes on one acre or larger lots, with individual water or sewage systems; or setting up newly-available "package" sewage treatment plants. Such plants are now being successfully used by rural industries, rural schools, large camps, and housing developments. Several makes of such units are available and must usually be approved by state or county health departments.

The units are placed in multiples so that one unit can be repaired while the other is operating. A requirement for these, the same as municipal plants, is a schedule of tests and a trained plant operator in charge of the unit. For many groups of homes, industries, or camps now having sanitary problems, these units will convert sewage to an effluent that may be safely discharged to most any stream or creek.

Group Action

There is great need today for you to help bring about common sense zoning, adequate-sized rural building lots, sensible water and sewerage extensions, as well as the use of package sewage treatment plants for isolated concentrations of people at camps, restaurants, industries, or small communities. Problems of waste from food processing plants, farms, and industry must also be met in a manner equitable to all.



GO AHEAD

. . . ask us how new Nuffields are better!

Nuffield diesel tractors—quality-built by the famous British Motor Corporation—always were good, hard to improve upon. But new Nuffield models are even better! Eight ways better:

- 1.** New ten speed transmission plus two reverse gears—a "right one" for every job.
- 2.** New external disc brakes—self-energizing, fade-free.
- 3.** New improved hydraulics—for improved automatic depth control.
- 4.** New differential lock operation—with easy, positive pedal action.
- 5.** New drawbar and stabilizers—provide dual hitch points for lower draft links.
- 6.** New instrument panel—with concealed lighting, safety engine stop control.

- 7.** New rear-mounted belt pulley—for up to 24% more belt horsepower.

- 8.** Modified electrical system—more flexible for use with trailed equipment.

TRY NEW NUFFIELD before you buy a new tractor! Try either one—the 10/42 for light to medium farming, or the big 10/60 for 4-bottom plowing and heavy forage harvesting. Ask your Nuffield dealer now for a free demonstration right in your field. Check the low operating cost, the easy handling, the extra power . . . and discover why new Nuffields are so much better. Or write direct to



FRICK COMPANY
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Waynesboro, Pennsylvania

Distributors of Nuffield Tractors and Farm Machinery
Manufacturers of Forest Machinery

Food For The Spirit



by Robert Clingan

"SPEAK THE TRUTH IN LOVE"

Many verses in our Bible are like two prongs of a fork. Two ideas are bound together in such a way that we discover they belong together. They limit each other, qualify each other, and enable us to apprehend reality or find a forcefulness in our living because both of them are there.

This is especially true of a little verse in the Bible in which the Apostle Paul says: "Speak the truth in love."

Of course a person should speak the truth. Years ago at a Town and Country Church conference in Ohio some rural ministers asked leaders of farm organizations to tell what they expected of the ministers there. One of the more outspoken farm leaders said, bluntly: "Tell the people the truth." He felt that the ministers had insights about their communities and the trends of the times they were withholding from their congregations. Instead, the ministers were being asked "to speak the truth."

How often "speaking the truth" is used to justify unkindness. How often a person has weakened

another person's ego, destroyed his self esteem, cut him deeply. When a friend of both parties, offender and offended, has remonstrated, he has been told: "It's the truth, isn't it? I was only speaking the truth."

A person may even seize upon a bit of unsavory and uncomplimentary truth and use it to build himself up at the expense of another person. He may think of life as a succession of teeter-totters, in which one person can rise only by making the man at the other end go down. Speaking the truth . . . or part of the truth . . . at the right time may give one person the temporary advantage of a see-saw. This, however, is no real or lasting advantage. By speaking the

truth that hurts, bluntly, and with poor timing, I may have lost a friend, won an adversary, and accumulated a deep sense of inner guilt that will only compound my own problems.

We can be saved from all this if we remember the other prong in the fork, the other part of the verse which reads: "... in love." That is it. "Speak the truth in love."

Even our mistakes will be forgiven, our misunderstanding of the truth will be forgotten, if all we do and say are an expression of Christian love.

Speak the truth . . . yes . . . but be guided in your selection of the truth to be used, the timing of its use, and the shape of its utterance by love. "Speak the truth in love."

FLETCHER ^{THE} 4-H'R
© JOE E. BURESCH



"Fletch, this isn't what Dad meant when he warned you not to let women take your hard-earned money!"

The milk checks from Fairlawn Farm's Wirthmore-fed herd paid for new buildings, new land, remodeled home.



This welded two-step bench is handy to stand on when working on tractor motors or large machinery. It is safer than a ladder and more comfortable on the feet; also handy as a low bench for tools when working under equipment. Framing is 1-3/4" angle iron covered by plates of mild steel or aluminum each 15 inches square. The low plate is 9 inches high and the high one 20 inches.



Just dropping the gate chain in a slotted angle iron bolted to the post latches the gate chain. It is adjustable and easily opened whether wearing gloves or not.



Fairlawn Farm's buildings are clean, well-built, efficient.

Harold Gehrke started dairy farming in 1945 with 90 acres of land of which less than 50 were tillable. He cleared 45 acres of dense woodland into pasture lots and acquired additional land. Today, after 20 years of hard work and good management he owns 235 acres, new modern farm buildings, good equipment and a handsomely remodeled home. This splendid record was paid for out of the milk checks from a fine Jersey and Holstein herd.

Over one million pounds in 1964 Fairlawn Farm's 75 milkers made over 1,000,000 pounds of milk for 1964 and 462 pounds of fat per cow from his DHIA records. Helping to manage the 75 milkers and 40 heifers are son Albert, who is a partner in the business, and Mrs. Gehrke who helps to handle everything from barn chores and milking to bookkeeping. Albert was Star Farmer of Connecticut in 1964.

Longtime Wirthmore user Good feeds and good feeding programs have always played an important role in Fairlawn Farm's success. That's why Wirthmore feeds and helpful Wirthmore service have been "part of the family" for many years. The Gehrkes know they can be relied on to produce the milk that makes the profits.

Your nearby Wirthmore representative will be glad to show you how Wirthmore feeds and feeding programs can contribute to a better profit picture for you, too. He's listed in the yellow pages.



Harold Gehrke and son Albert manage the Wallingford, Connecticut farm with help of Ward M. Holloway.

WIRTHMORE®



**The Roofing that
stands up best...
costs the least to install**



Galvanized Steel Roofing by Bethlehem



Gayway Farm Notes

by HAROLD HAWLEY

"SPEAK FOR YOURSELF"

One of the lessons we seem to find most difficult to learn concerns this business of speaking for ourselves. Just as Miles Standish lost the bride because he was willing to entrust his proposal to someone else, so farmers lose much by letting others speak for them.

Over the years I have developed much respect for many college professors and for their ability. I take second place to no one in giving them and the Extension Service credit for the great contributions they have made to our agricultural industry.

Likewise, we are all much indebted to the paid management and staff of our various co-ops. Without their dedicated service these organizations would be in real trouble.

The credit people are so essential to the industry that one seldom thinks of them as having interests other than those of the farm people they serve. They do, however, and this very fact makes them second choice as spokesmen for agriculture.

The same has to apply to the College people and to the paid personnel of the many co-ops which serve us. Likewise, even the best-intentioned farm editor may sometimes see things from a different point of view than his readers. This is not to say his judgment is better or worse or his conclusions worthy of more or less weight than those of his readers. All that is being said is that in spite of a close involvement and interest in agriculture none of these above-mentioned persons are really in the best position to speak for farmers.

In Best Position

None but farmers are in this best position. When they speak for themselves and their neighbors they have no other interests to serve; neither do they have a separate (different) point of view. They can speak with greatest authority on farmer attitude because they are in the midst of the problem and see it from the viewpoint of the people they represent.

It wasn't planned that way, but all too often the politician presumes to know either what farmers want or need, or what is best for them... or at least he claims to hear what they say they want. Certainly it must be tough for a representative of the people truly to hear what the majority want, or really to know what will best serve agriculture's needs. However, difficult or not, the politician comes up with an opinion, takes

a position, and becomes a spokesman for farmers and an "expert" on their wishes. It is one of the facts of life that many a politician's positions are arrived at after hearing not from farmers themselves but from those who claim to be speaking for farmers.

How much clearer would farmer opinion come through to him if all of us took a more active part in developing opinion and policy and in speaking for ourselves on it. Such speaking would naturally take various forms of communication with our representatives, and would be manifested as action taken through our general farm organizations.

Here again there is much room for improvement. If general farm organization leaders are really to reflect member thinking, more of the members must be active in making policy. Likewise, if the organization's voice is to be an effective one, the membership must understand and support the majority position of the group. If anyone doubted the need for a strong farmer voice before, it would seem that what reapportionment has done to us should convince us all of the need to be actively engaged in policy-making and in speaking for ourselves, with the impact that united action can carry.

FEED THAT HAY

It looks as though anyone who wants to feed a lot of hay next winter had better feed a lot to the hay in the spring and summer. We've usually fertilized rather modestly after the first cutting was off; this year we hit it pretty hard with 5-20-20 in April. There was enough moisture to use this extra plant food and result in a tremendous increase in spite of a dry season.

Immediately after taking off the first crop we spread a layer of liquid manure. I'm sure that with a little rain the results would have been more marked, but we were well pleased at the way the second growth came along.

However, nothing seems to be an unqualified success. The fly in the ointment was odor. We live close to town and have several non-farm families along our road. Even though we spread only when the wind was away from town, it had a way of changing direction... and on a couple of occasions we caused some mal-odor in town.

In hopes of avoiding a bad public relations situation, we are adding some enzymes to the manure in the pits. The theory is that

(Continued on next page)

American Agriculturist, August, 1965

the enzymes will destroy the bacteria that form the gas that makes the odor. It's too early to know whether this will do the job. I don't think it will be necessary in cool weather, but certainly anything we can do to avoid offending others during the hot weather months will be worth trying.

DO YOU WORK?

I've never seen figures on this and claim to be no authority, but I am impressed by what seems to be a terrific upsurge in the number of farm women who are entering the off-the-farm labor force in various capacities. Of course, their city sisters have been doing this for a long time but, at least locally, it's a relatively new development to

have so many women working away from home.

One of the things that intrigues me about this is that I figure that, at least in our case, Doris is worth a considerable amount to the business as secretary, bookkeeper, chauffeur, errand runner, message relayer, etc. Were she to work away from home steadily we would have to hire more help in order to free me to do more of these necessary and important jobs. For us it has seemed to make more sense that both work here where we prefer to work rather than have her work away and hire someone to replace her here.

Maybe it really boils down to the fact I would rather work along with her than have another hired

man to work with and worry about. Make no mistake about it, she does no man's work . . . but it still takes about 1/2 time to do the buying, record-keeping, phoning, driving, etc. I guess it must figure out differently with others since so many of them seem to choose the other course. Naturally, every situation is different, and the decisions reached regarding this will vary.

PUT IT DOWN!

One of the little niceties which are a part of having fun should be to guard against discommoding others. A standing peeve with me concerns some woodchuck hunters.

Not content with merely "doing the chuck in," they apparently feel an urge to let the whole world know of their skill. To accomplish this, the late deceased is draped over the nearest fence, there to ripen.

Now, I like to pull down on a chuck as well as the next fellow, but I'm dedicated to the notion that once dead a chuck had best be shoved down his hole and forgotten. I've even made this a condition for those who want permission to hunt. I plead not guilty to over-sensitivity. Neither the sight of a rotting carcass on the fence nor the smell of same on the breeze overwhelms me. It's just that this seems like a mighty poor way to beautify this good earth.



Walk-throughs 13 inches wide in the fences of the various lots at the Utah State University dairy farm, allow workers to go in and out without opening the gates. Posts of 3-inch iron pipe are set in the floor or footings of the waterer.



This cattle guard of welded pipe rests over a pit 2 feet deep. If the pit fills (which would take years) it can be cleaned out after lifting the guard out with the tractor-mounted loader. The guard is 5 by 16 feet, made of 2-inch pipe welded to railroad rails spaced 2½ feet apart. The pipes are spaced 6 inches on center. The pit is concrete walled.



With this rig the air compressor can be moved conveniently to any location where it is needed.

Worms? Not a one! Don't worry about them even up to harvest... just use THURICIDE® 90TS*!

Imported cabbage worm and cabbage loopers on lettuce and cabbage can't take THURICIDE 90TS FLOWABLE and live! And you can apply it right up to harvest, because there is no residue tolerance requirement on many vegetable crops.

Not a chemical, THURICIDE 90TS is a *microbial* insecticide which singles out and destroys only the leaf-chewing larvae of certain lepidopterous insects (caterpillars, loopers and hornworms). And THURICIDE 90TS is harmless to just about everything else, including man. Its active ingredient, bacterial spores of *Bacillus thuringiensis*, attacks the gut and paralyzes it. The worm stops feeding almost immediately, dies and dries up within 72 hours.

THURICIDE 90TS can be used to control worms on other cole crops as well. It is also used on tomatoes, potatoes, tobacco and melons. THURICIDE is used extensively on forest trees and ornamentals for the control of gypsy moth, cankerworm and linden looper.

Stop imported cabbage worms and cabbage loopers in your lettuce, cabbage or other cole crops the safer way—use THURICIDE 90TS! If your dealer doesn't stock THURICIDE, he will get it for you. Write for your free copy of Stauffer's new brochure: "A Revolutionary Concept in Insect Control." We will send your copy and the name of the nearest dealer who stocks THURICIDE 90TS.

Stauffer Chemical Company, Agricultural Chemical Division, 380 Madison Avenue, New York, N. Y. 10017.

*Trade Mark of Bioform Division, International Minerals & Chemical Corp.

READ THE LABEL, HEED THE LABEL AND
GROW WITH STAUFFER CHEMICALS



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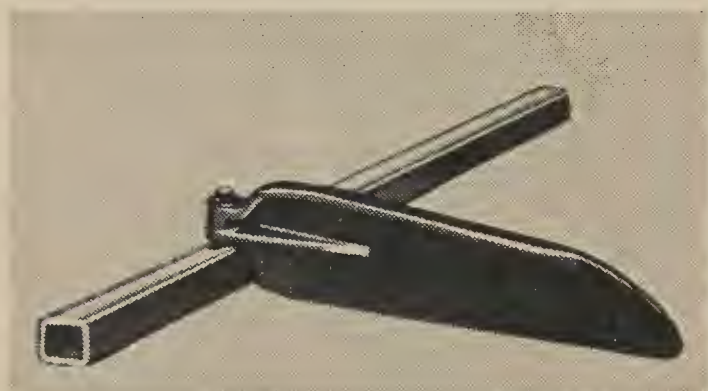


With Jamesway, you get high speed cleaning, and a galvanized elevator for the price of a painted unit.

NEW BIG J CHAIN BARN CLEANER

works fast, moves liquids
and solids 23 ft. per minute

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ALFALFA WEEVIL CONTROL

by Amos Kirby

New Jersey Editor

THERE MAY BE a breakthrough on the alfalfa weevil, one of the most destructive pests to this crop. The U. S. Department of Agriculture laboratory at Moorestown, New Jersey, has some encouraging news on a parasite that may one day be an effective control.

B. A. App, assistant chief of Grain and Forage Insects Research at Beltsville, Maryland, informs me that a parasite, *Bathplectes anurus*, has been successfully introduced in the East. Two other species have also been introduced and recovered. Dr. App states that another parasite established in the Western states has resulted in 80 to 90 percent control.

We asked Dr. Bailey Pepper, chairman of the Entomology Department at the College of Agriculture, for his observations. He states that researcher Robert S. Filmer and his graduate students at Rutgers have carefully surveyed the alfalfa weevil situation throughout the State, and are hopeful that biological will supplement chemical control.

Alfalfa growers regret the withdrawal of heptachlor and dieldrin from the list of recommended controls.

Dr. Dale Bray at the University of Delaware writes that an Algerian strain of alfalfa is not acceptable to the weevil. While this strain is not as yet of commercial value, it has possibilities. And another breakthrough may come from still another new variety of alfalfa now in the experimental stage in North Carolina.

CORN RESEARCH

Hunterdon County is the center for some of the most intensive corn research being conducted in New Jersey this year, aimed at such basic problems as stalk and root rot, insect damage, resistance to birds and, of course, higher yields.

A total of 110 hybrid varieties are included in programs on three farms, those of Nick Susalis and J. LeRoy Clark at White House, and L. V. Aronson's Meadowbrook Farm, Oldwick.

MANURE DISPOSAL

A number of South Jersey poultrymen are turning to the liquid disposal of manure from their plants. I visited plants in the Vineland area where the Agway service is in operation, and it appears to be the answer to problems of odor and immediate utilization. With the wide diversity of crops grown in South Jersey, there are usually fields between crops where the liquid may be spread directly on the soil, even in midsummer.

Poultry house waste is being accepted as a valuable source of

plant food, and I am told that growers acquainted with its value are paying substantial sums to have it applied before replowing or disking for either spring or fall crops. An Extension specialist quoted a producer as saying that in view of the low price for eggs poultry manure might be their most valuable output!

In view of the many complaints from suburbanites over even the faintest odors from barns, the liquid disposal system may be a means for harmony among neighbors.

WEED CONTROL

A major problem confronting sweet potato growers each year has been the control of weeds after the final cultivation. The introduction of new herbicides may prove to be the answer. On the farm of Raymond Jones, Pedricktown, Salem County, county agent Robert Gardner reports that three materials . . . Diphenamid, Dacthal and Amiben . . . are being used. In the experimental projects weed control has been satisfactory, and now the project is being expanded.

NEW EGG LAW

New Jersey has a new egg law (to go into effect January 1, 1966). I called on J. Clifton Lambert, chief of the Bureau of Poultry Service, to find out how this new law is going to apply to local producers.

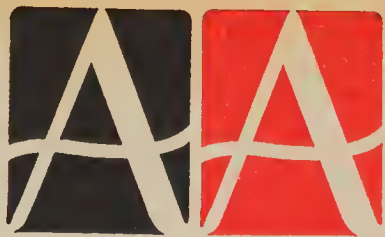
Mr. Lambert tells me that this is the first law of its kind. It is a start to establish uniform egg laws across the country, to develop a market pattern, and clear up much uncertainty on quality, grades, sizes and other factors. Actual rules and regulations are yet to be developed. Mr. Lambert is quite emphatic that the law will not work hardship on any producer or force him out of business.

SALT WATER IRRIGATION

Over in Atlantic County, John Brockett, agricultural agent, reports that based on experiments conducted at the Norfolk Experiment Station growers have found that corn and tomatoes have not been injured with limited amounts of salt in the water. Water at low tide normally contains less salt than on a high tide, both of which are factors in the low-lying areas.

County agricultural agent Robert Gardner has equipment in his office at Salem for the testing of water for salt content up to 4,950 parts per million. Water from the ocean may have 30,000 parts per million, and water with a 4,950 ppm is considered the safe limit for crop irrigation.

American Agriculturist, August, 1965



FARM DOLLAR GUIDE

FOOD HANDLERS AND PROCESSORS may have more to say in the future about government farm programs than will farmers. Probable items in this year's Farm Bill are: (1) a land retirement program to take 8 million acres out of production each year for five years; (2) a plan to authorize a Class I base plan to dairymen in federal order markets (this would require approval by producers). Much talk also about basing farm programs on direct payments to farmers rather than on price supports.

PRICE OUTLOOK FOR EGG PRODUCERS has improved due to smaller hatch of egg-type baby chicks. Says a Cornell economist: "It would not surprise me to see the wholesale price of large white eggs in New York City exceed the 50 cent level this fall." This prediction alone is not good grounds for expanding the size of your flock!

YOU WILL HEAR MORE about feeding a mixture of 30 percent hay and 70 percent grain to dairy cows. It's suggested as way to prevent eating too little roughage and too much grain, with consequent drop in fat test.

USDA FORECAST FOR FRUIT: Apples slightly below last year's big crop, 139 million bushels, still above average. Peaches, 83.5 million bushels, 12 percent above last year and 11 percent above the five-year average. Pears, 18.3 million bushels, 40 percent below last year, 30 percent below average.

THREE DAIRY CO-OPS ... Dairymen's League, Eastern, and the Northeast Federation of Cooperatives ... have served notice that they will fight any move to charge dairymen for the hauling of bulk tank milk!

JUNE 1 INVENTORY OF PIGS in ten Corn Belt states was down 11 percent lower than last year, according to USDA. Farmers in those states reported intentions to have 3 percent fewer sows farrow than last year between June and November '65.

FEDERAL GAS TAX REFUND CLAIMS for year ending June 30 must be filed at regional IRS Service Centers instead of with district tax director. Use Form 2240. In future years, this credit will be taken as regular income tax return (beginning with gas used July 1, 1965 to June 30, 1966).

CHECK ON AT-THE-FARM POULTRY FEED PRICES in New York State by G. H. Thacker of Cornell shows a wide range from a low of \$62 to a high of \$91. It appears that such a wide range is not justified, and points to the importance of checking price carefully. The poultryman with high feed costs is at a distinct competitive disadvantage.

FOR A FALL-SOWN GRAIN CROP get a soil test; pH 6.5 to 7 is best. If more than 2 tons of lime are required, plow under part before disking in 2 tons after plowing. Some farmers put on a light application of manure in late fall to provide plant food and protection during winter.

A LIQUID MANURE STORAGE TANK requires about 100 cubic feet of space per day for a 50-cow herd. If the tank is emptied 6 times a year, the needed capacity is 45,000 gallons. There are advantages and disadvantages to a liquid manure system. Do some careful figuring before you decide on one.

TO AVOID POSSIBLE PRUSSIC ACID POISONING of cows grazing on sudan grass, first put one or two cows on pasture as a trial; second, watch cows closely for a few hours; third, don't turn cows in until sudan is about 20 inches high or 30 to 35 inches in the case of sudan-sorghum hybrids.

WHEN YOU BUY METAL ROOFING, check carefully on quality. If not marked with amount of zinc coating, it's likely to begin rusting in one to three years. Medium zinc-coated roofing should have a rust-free life of five to ten years; best grade to fifteen years.

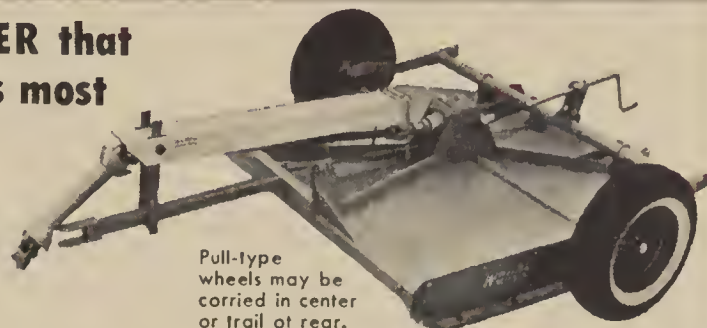
FEEDER PIG PRODUCTION has proved profitable for Bill Lashbrook, farm superintendent for Beacon Feeds, on his own farm near Auburn, New York. He converted old shed into farrowing house for 25 sows that farrow twice a year. Feeder pig sale at Caledonia is market outlet; Bill plans 50 to 80 pigs for each bi-monthly sale, reports that demand for feeder pigs in the State exceeds the supply, and thinks there is good profit potential for such an operation.

A STUDY OF DAIRYMEN IN DHIA shows that cows fed hay and silage all year averaged to produce 1,500 pounds more milk than cows on pasture alone. In addition, dry cows need grain, up to 1½ pounds per hundredweight for high producers for two weeks before calving.

WOOD'S Cadet 72 ROTARY CUTTER

the BIG 6 FOOTER that works as easy as most 5 footers...

Costs \$50 to \$100 less than other 6-foot cutters...



Pull-type wheels may be carried in center or trail at rear.

Mounts all standard 3-pt. hitches — IH 2-pt. fast hitch — AC snap coupler.

Features that make the difference! 50 H.P. gear box — heavy-duty, quick-change blades — 3-joint universal drive on pull type — exclusive auto leveling — removable left side for hay mowing... see and compare the 72 BEFORE YOU BUY.



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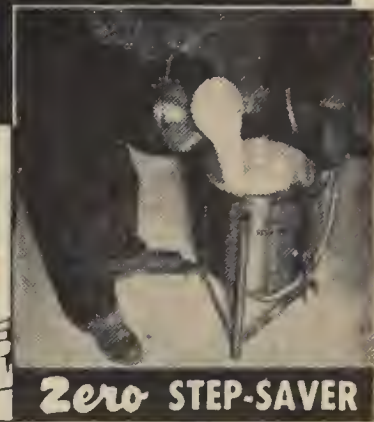


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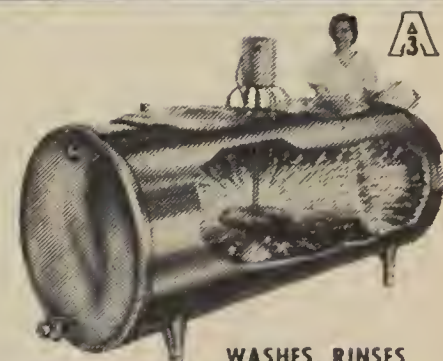
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Zero STEP-SAVER

Now — thanks to the newly-developed ZERO PAIL PIPELINE — material handling and clean-up can be easy on any dairy farm! Simply set up the low-cost ZERO VACUUM-OPERATED STEP-SAVER where most convenient for use — as shown above. Connect it through a milker line to the ZERO T-20 VACUUM AUTOMATIC BULK MILK COOLER. And you'll have a ZERO PAIL PIPELINE — a modest-cost, modern, direct milking system — which quickly draws milk into the ZERO bulk tank direct from the cow, by vacuum supplied by the tank.

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NEW YORK SALES TAX

THERE'S AN old saying that, "The only sure things are death and taxes." The way things are going, this should perhaps be amended to "death and more taxes."

Anyway, the Empire State on August 1 got around to joining 38 sister states in imposing a sales tax on the sale or rental of tangible personal property, and on certain specified kinds of services. It's to be two percent and will be in addition to local sales taxes imposed by counties, cities, and school districts (the combined take not to exceed five percent, though). The

State will collect for the whole shebang and then return the local sales tax portion to local governmental units.

The \$64 phrase "tangible personal property" really isn't so tough to explain. "Tangible" means that it's something that thuds when you kick it (like a lawnmower that won't start); "personal property" indicates that it can be moved . . . as contrasted to real property like land and buildings.

Services that are taxed include information services that are not personal or individual in nature

(investment service newsletter, Kiplinger letters, etc.), printing, and storage and safe deposit rentals. Restaurant meals of one dollar or more (food and drink combined) as well as hotel and motel charges, are subject to tax. Old Panther Juice, regardless of the level of alcoholic content, is taxable at all times.

The use tax portion of the law says to every New York State resident that, when he buys a taxable item while traveling in some other state, when he returns he should ante up an amount equal to the tax he would have paid had he purchased the item in New York. Needless to say, many people will be tempted to play the role of the strong, silent type on this one!

For sales tax purposes, all items

used for farming are divided into three categories . . . production, administration, and marketing. Only production items are exempt from tax . . . for instance, milk cans or a bulk tank are marketing devices and are therefore taxable.

You'd be surprised how many items you might consider to be production items that do not qualify for exemption. For instance, farm trucks, tools such as wrenches and the servicing or maintaining of farm machinery are all taxable. The status of pallet boxes is a bit in doubt at present because the law says exempt items "must be used exclusively in production;" it's argued that these boxes are used in marketing.

Containers

Returnable containers such as apple crates that are not being purchased for resale are technically taxable if used in marketing. Any outer packages that do not reach the consumer may also be taxable, but an interpretation exempting such items may eventually be issued. Cellophane bags for apples are exempt because they reach the consumer and are considered a part of the final salable item.

The sales and use tax is intended to be applied to sale of an item to the final consumer. If an item is purchased for resale, or to be combined with other raw materials in producing a final commodity for sale . . . then the original purchase is nontaxable.

If a new farm building (including labor camps) is built, the tax applies only on materials purchased. However, on a repair job, both materials and the labor charge are subject to tax. One complication, though . . . the labor charge is nontaxable if done by someone not in the regular business of rendering such services. Thus, if you, your hired help, or a temporary handyman can do the fixing, you can save the taxes on the labor bill that would be added by a carpenter or contractor.

For equipment repairs on production items such as a tractor, the repair parts are exempt, but the charge made by the repair agency is taxable. The tractor itself, of course, is exempt if purchased by a farmer because it's a production item.

Exemptions

Exemptions to the tax include practically all food and medicines for human consumption . . . with the exception of candies, alcoholic beverages, soft drinks, and the restaurant meals already mentioned. Gasoline and electricity used directly for production of tangible personal property is exempt, but the rest is taxable. All insurance payments are exempt, as are all interest charges for credit extended. Marketing services, such as rendered by auction markets, are not taxable.

Veterinarian services for animals involved in production are believed to be exempt from taxation, as are the medicines he uses if they are billed separately rather

(Continued on page 26)



It would be great if it started to whistle after 250 hours of use

It would be great if a worn tractor spark plug would signal when it started costing you time and money.

But it doesn't!

Your tractor can be wasting power and fuel without any sign of trouble. Here's why—an accumulation of fouling deposits plus normal electrode wear can cause a plug to misfire. This *hidden misfiring* usually starts after about 250 hours of use. It's difficult for even a trained mechanic to detect, but it can

waste a gallon of fuel every four hours . . . about eight cents out of every dollar you spend on fuel *on the average*.

What can you do about it? Tractor experts advise changing plugs every 250 hours . . . that's about every six months for the average tractor. If you're still running on the plugs that carried you through spring field work, take a tip from the experts and install new silvery-plated Champions now. They'll more than pay for themselves in fuel savings.



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The Question Box

... Send us your questions — we'll get the answers

What causes cork-like knots throughout an apple and what can be done to remedy it?

If the "cork-like knots throughout the apple" were accompanied by fine brown lines in certain areas of the flesh and there were very small dimples on the surface of fruit, the trouble is likely caused by apple maggot, a common insect.

The only other trouble that might be confused with apple maggot injury is boron deficiency. Boron is a minor but essential element in the nutrition of fruit trees. In most areas the average soil supplies adequate boron for normal tree performance.

However, in limited areas, such as Clinton County, New York, some of the soils are low in boron content. Apple trees on these soils in dry years will fail to obtain sufficient boron from the natural supply and if the leaf or fruit content drops to 20 ppm, the deficiency shows up as corky brown areas in the flesh. This develops about 2 weeks before harvest.

Of course, boron deficiency is easily corrected by the use of a fertilizer containing boron, or one can apply Borax. The rate of Borax applied per tree ranges from 2 ounces for 3 to 4-year-old trees up to 18 to 20 ounces for trees 25 years or older. Ground applications should be distributed evenly so as to cover the soil surface from near the trunk to the spread of the branches. — *M. B. Hoffman, Cornell University*

What's the best material for treating the inside of a silo?

For wood stave silos, raw linseed oil is recommended applied every year or two. It's most easily done as the silo is being emptied. Thoroughly clean the wall with a wire brush before applying. For the first application use 2/3 raw linseed oil and 1/3 turpentine. Don't smoke as the mixture is inflammable. For future applications use the oil clear. Linseed oil is also recommended for monolithic concrete silos. Some dairymen paint concrete silos using Portland cement and water. Tile silos are not affected with silage juice, with the exception of the mortar in the joints, which may need replacing where corroded.

What causes the paint on my house to blister? Should I add shellac or varnish to paint?

Generally, blistering is caused by moisture that pushes the paint film off the wood. This is moisture trying to get out of the house. It may come from any water source such as damp cellars or crawl spaces, lots of showerbath usage, clothes driers not vented outdoors, cooking vapors, leaky roofs, and shrubbery that tends to prevent sunlight from drying out the siding.

Shellac and varnish have good holding qualities; however, they

both tend to seal in the moisture which may be trying to get out. If moisture is the problem, I suggest that you try to determine where it comes from and how to get rid of it. Often a last resort is to place individual small round (and screened) vents at the top and bottom of each stud space. I have known these to eliminate blistering on many homes.

Occasionally, some kind of paint primer has been used to which no finish coat of paint will

adhere. Back in the 20's yellow ochre primer was a common material (and headache). To some degree the aluminum paints present the same problem and are not now used for primers. — *E. W. Foss, Cornell University*

I have some land that is a water pocket. I've been told that by blasting into the ledge, which is just below some clay, a crack will sometimes be sufficient to take care of the backed-up surface water.

The theory of blasting holes in wet areas to improve drainage sounds attractive, but it is seldom effective. In glaciated areas, the soil mantle over rock usually becomes more dense and less per-

vicious to water with increasing depth.

If the underlying rock strata is sandstone, shale, or granite, the openings between the rock are usually quite small and restrict the movement of water. If the underlying rock strata is limestone, the practice has a reasonable chance of success... assuming that you blast the hole over a fairly-large cavern area.

I have had several experiences in trying to drain pot holes by blasting to a depth of 15 feet or more. All of them resulted in a rather useless water hole, and I can think of no economical way to cap springs which might be uncovered. — *Carl S. Winkelblech, Cornell University*

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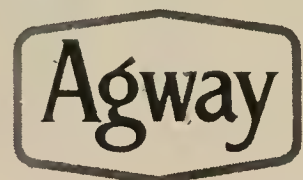
cut her feed cost with Agway's P.F.P.

Agway's Profit Feeding Plan for calves is based on the economic advantages of feeding a good milk replacer.

For instance, 250 lbs of whole milk can be completely replaced by Agway Milksaver, Sted-A-Milk, or Veal-N-Gro. And the cost is about half the price you would get for the 250 lbs of milk.

Agway replacers are balanced, complete calf rations... supply all the nutrients your calves need to develop into thrifty heifers.

Ask your Agway man about the Profit Feeding Plan for calves today. P.F.P. can get your calves started right—and with real economy.



**DAIRY FEEDS
& SERVICES**



HOLIDAY IN HAWAII

OUR AIR TOUR to Hawaii last fall was such a success that we decided to have another one this year, and the dates are October 16 to 30. Imagine being able to see the most beautiful sights of these fascinating South Sea Islands, including the colorful Aloha Week celebrations, in just two weeks!

We'll fly to and from Hawaii on luxurious Trans World Airline and Pan American jets, with overnight stops on the West Coast to stretch our legs and do a bit of sightseeing in California. Every detail of this delightful vacation has been carefully and expertly arranged by our tour agents, the Travel Service Bureau of Needham, Mass. And as with all American Agriculturist tours, everything is included when you buy your ticket, so there are no travel worries of any kind. It's really the perfect way to see Hawaii!

First Stop — Los Angeles

Gathering in Chicago on Saturday morning, October 16, we board our TWA jet and find ourselves checked in at the luxurious Hollywood Roosevelt Hotel in Los Angeles by mid-afternoon. After dinner, some may wish to visit the famous Palladium to hear Lawrence Welk's orchestra, and the next day we're at leisure in Hollywood to visit Disneyland or take one of the many optional sightseeing trips available.

Kauai

On Monday, a Pan American Clipper will carry us across the Pacific to Hawaii. We land at Honolulu and continue on to Kauai, "The Garden Isle." An excursion by motor launch will take us up the Wailua River to a lovely fern grotto, and we'll see acres of waving sugar cane, rice paddies, and field upon field of beautiful tropical flowers. A few of the other enthralling sights on this lovely isle are Waimea Canyon, Kalalau Lookout, and the lush, green Hanalei Valley.

Our next destination is Oahu, best known of the Islands, and the Princess Kaiulani Hotel on Wai-kiki Beach, where we'll stay during

Aloha Week. This annual event consists of special pageants each evening, with the gala Aloha Week Parade and Grand Ball climaxing the festivities.

Other highlights of our stay on Oahu are a special Hula show, a motor trip around the Island with stops at a Buddhist Temple, the Royal Mausoleum, and Pali Cliffs; also a cruise through Pearl Harbor to Battleship Row where the sunken USS Utah and USS Arizona have been left as a permanent memorial.

From Oahu we go to Maui, the "Valley Isle." Here we'll visit historic Lahaina, Hawaii's first capital, and the Iao Valley to see the "Needle," a volcanic freak rising more than 1,000 feet above the valley floor.

"The Big Isle"

Our last island is Hawaii, the "Big Isle." We'll drive along historic Kona Coast, visiting the City of Refuge, Captain Cook's Monument, the vast Parker Ranch of 300,000 acres, lovely Akaka Falls, the orchid capital of Hilo, and the Hawaiian National Park.

San Francisco and Home

A Pan American jet carries us back to the mainland and a day of leisure in San Francisco. Ride a cable car, dine at Fisherman's Wharf, or visit any of the countless exciting places this famous city offers. On October 30, a TWA jet will take us to Chicago, and we should all be home by late afternoon.

Fill out the coupon on this page and mail it today to get the attractively illustrated itinerary with information about the cost of this

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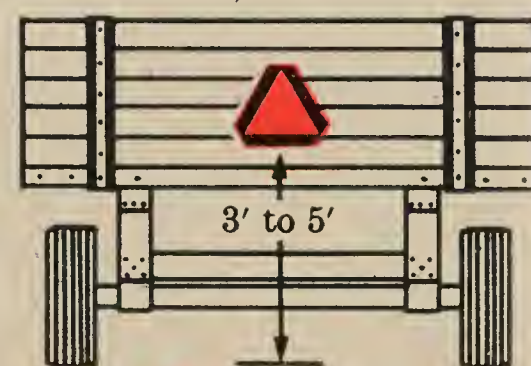
Two British Isles Tours

By the middle of April, all space had been reserved for our British Isles Tour in September. Reservations continued to pour in until the waiting list was so long that we knew something had to be done! What did we do? We arranged a second tour as identical to the first as possible, and this group will leave Kennedy International Airport on September 7, just five days later than the first tour.

We are glad to tell you that it will be possible for you to visit the British Isles with American Agriculturist this fall — if not on Tour No. 1, then certainly on the second tour. It's true that time is getting short, but you can still make it. Write or phone (Needham, Mass. 444-2003) today to make your reservation.

THE SMV EMBLEM

BY DAY



OR NIGHT



Recent releases on safety statistics show that rural roads and highways are now the site of about three out of every four traffic fatalities. And one of the major reasons given for this is what are termed "SMV"... slow-moving vehicles. In this category are such things as tractors, self-propelled farm equipment, as well as construction equipment, etc.

Most traffic accidents on rural roads are caused by collisions between these slow-moving vehicles and cars and trucks. Far too often, the driver of the faster-moving vehicle didn't see the slower one in time to slacken speed.

Research conducted at the Ohio State University, under the sponsorship of the Automotive Safety Foundation, resulted in the creation of the SMV emblem, to be affixed to the center back of slow-moving vehicles. Made of metal, the yellow-orange fluorescent center reflects in daytime, while the border of reflective red material shows up at night, both at a distance of 500 feet.

For further information about the emblem and how to obtain it, write to the Farm Department, National Safety Council, 425 North Michigan Avenue, Chicago, Illinois 60611.

American Agriculturist, August, 1965



Acres of Gold

DEKALB[®] Breakthru



XL

**Single and
3-Way Crosses**



Shorter, Uniform, Tougher Stalked Plants that take narrow row planting—Higher Populations—Heavier Fertilization to put **TOP Yields** in Your Bin



Shorter stalks allow more light penetration in narrow rows—harvest easier—are more attractive.



Bred-in insect and disease tolerance helps keep stalks green and strong as grain matures.



Short, high population hybrids are bred to put an ear on every stalk for maximum yields.



Short stalks + Higher populations + bred in resistance = **THE BIG PAYOFF—HIGHER YIELDS.**

DEKALB **XL** VARIETIES

Bred to Make You More Money

XL-304

Uniform, High-Yielding 3-Way

An early hybrid particularly adapted to high populations—with high yields and strong stalks—that's DeKalb XL-304. In DeKalb Performance testing in Ontario, XL-304 topped all 25 hybrids with a top yield of 117.2 bushels and the least amount of lodging at a 20,000 harvest population. In three official Michigan trials, it outranked test averages by 9, 8 and 11 bushels. In North Dakota, it tied for first on yield among 58 hybrids in an official test, even though one of the earliest.

In a DeKalb machine-harvested trial at 24,000 population, it outranked six other well known DeKalb and competitive hybrids on both yield and stalk strength. It was 9.4 bushels above the test average with only 1/4 as much lodging. In northern Pennsylvania in an official trial in 1964, XL-304 outranked 28 hybrids with a yield 11.3 bushels above average. Maturity approximately 95 days.

XL-307

SHORT, Dark Green, Uniform

SHORT, dark green with broad leaves and good uniformity. Very attractive 3-way cross of 100 day maturity. Relatively new with limited production a year ago, the production of XL-307 is being greatly increased for 1966 planting.

Well adapted to high populations. In DeKalb trials at a 24,000 rate with six other well known commercial hybrids, it outyielded even DeKalb XL-315, although some five days earlier. Stalk breaking and ear dropping were both well below average.

XL-307 has a wide adaptation in New York. Its maturity and good grain yields will adapt to a large area for grain—its leafy character, ability to stay green, to take high populations, and to produce a high ratio of grain, all qualify it as an excellent high energy silage. A hybrid with very good picking qualities. Include XL-307 in your 1966 corn crop plans.

XL-315 *Top Yields With Good Stalk Quality*

Great new 3-way with a big performance record. As an average in DeKalb's own 1964 test fields in Minnesota, Wisconsin, Michigan and Ontario, XL-315 ranked 3rd on yield among 49 hybrids at both 16,000 and 20,000 populations. Among the 10 commercial hybrids—both DeKalb and competitive—XL-315 ranked first with its yield of 111.4 bushels at the 20,000 harvest population. This was 9.1 bushels above the test average.

At Woodstock, Ontario, just west of Buffalo, XL-315 had the top yield of 121.5 bushels at 20,000 population among all 49 hybrids tested by DeKalb—16.8 bushels above the test average. It ranked in the top 15% on stalk quality.

Here's how it looked at this 20,000 rate:

	Yield	% Lodging
XL-315	121.5	5.7
DeKalb 57	102.9	4.0
DeKalb 59	109.4	5.9
XL-15	112.0	5.5
Competitor A	109.1	6.9

Here's a big yielder with plenty of stalk quality at higher populations.

XL-315 has rugged and vigorous stalks with ears that are long, girthy and golden-bronze in color. Uniformity is unusual for a 3-way cross. Picking qualities are very good. You'll want to try XL-315 in 1966.



5 point

PROFIT

Program

1 Plant Them Early—for big yields, stronger stalks.

2 Apply Fertilizer—to maximum.

3 Control Weeds—to assure that only corn uses nutrients, water and light.

4 Control Insects—for yield and quality.

5 out all DEKALB

59 DeKalb 59 has been a very popular hybrid in New York for many years, as it has all over the northern corn belt. It is rugged, vigorous and widely adapted. Its long ears and stalks of somewhat above average height adapt it to either grain production or silage production. It has a wide adaptation to all types of soils and to different populations. Maturity is rated as 105 days, similar to XL-15 and XL-315.

The use of DeKalb 59 has increased steadily since its introduction a few years ago, principally because of consistent performance as a grain or silage variety.

45 A good early 4-way with a 90 day maturity. A well balanced variety with good yields and above average strength. Adapted to wide variation of soils and growing conditions. Plants are medium in height with dark green color.

29 One of the earliest varieties at about an 80 day maturity. Has ability to make a good crop in its maturity zone, or if planted late in longer season areas. Has produced yields over 100 bushels under favorable growing conditions.

XL-304 Doubt about the uniformity and ability of this single cross has attractive golden-bus which pile up big yields above average in DeKalb trials. Plants have green leaves adding to its value in the field.

XL-307 A new excellent yielder of eight locations in testing in U.S. and Canada. Bushels vs. 96.3 for the test. Also in the top third on strength—at a 20,000 harvest rate 3-way with maturity of 100.

57 A consistent performer on both yield and ability. A reliable 4 way of 105 day maturity adapted to soils of medium fertility.

DeKalb similar in maturity to DeKalb 45 and XL-315.

XT-3 A new outstanding performer of completely new breed at maturity like DeKalb 29. 4th on yield in DeKalb of 49 hybrids at 20,000 pop.

224 A solid performer which has shown ability over a period of years to perform well under a wide range of conditions. Maturity is just a little later than DeKalb 59.

Leaves are dark green and broad. Ears are medium in length with good girth and have reddish cast.

XL-325 A modern 3-way—short stalked, able to take high populations, big yielder. Five days earlier than XL-45. In DeKalb's 1964 Performance Test Fields, XL-325 ranked ahead of all 49 hybrids tested at four widely scattered locations at a 20,000 rate.

415a Characterized by short stalk, deepkerneled ears, and good stalk strength. Maturity is almost identical to that of DeKalb varieties 238 and XL-45.

Plants are dark green with low set, girthy, deep-kerneled ears.

441a Variation of 441 with better performance. Good yielder, excellent stalk strength. Best performance record of any commercial in DeKalb trials at 20,000 rate. Ears are long with large kernels.

238 A long time favorite in New York. Maturity is similar to that of DeKalb 415a or 115 days. It can be used either for grain or for silage and is a top-notch performer at either. Yields well at populations up to 20,000 at harvest. Harvests well with mechanical picker or picker-sheller.

DeKalb 238 was selected as the contest corn in the National Mechanical Corn Picking Contest in Minnesota in 1961.

Ears are of medium length, deepkerneled and of good girth.

A reliable hybrid noted for consistent performance.

XL-302 DeKalb's earliest 3-way cross of about a 90 day maturity. Will give good yields in that zone or can be planted later to salvage a crop in longer season zones. Ears are large for its maturity with average girth.

XL-45 Top-notch adaptation for high populations, early planting in southern New York and for silage rich in grain. DeKalb's leading single cross. Short—dark green. Has unusually strong stalks.

Characteristics of Hybrids

EARLIEST TO LATEST	MAX. POP.	TOLERANCE RATING		
		BLIGHT	BORER	STALK ROT
29	18,000	Very Good	Very Good	Very Good
XT-138	18,000	Very Good	Excellent	Excellent
45	18,000	Excellent	Excellent	Excellent
XL-302	18,000	Excellent	Excellent	Excellent
XL-304	20,000	Excellent	Excellent	Excellent
XL-306	20,000	Excellent	Very Good	Excellent
XL-307	20,000	Excellent	Excellent	Excellent
56	16,000	Good	Good	Good
58	16,000	Fair	Fair	Fair
XL-315	18,000	Excellent	Very Good	Excellent
XL-15	16,000	Very Good	Good	Very Good
59	16,000	Very Good	Very Good	Very Good
57	18,000	Very Good	Very Good	Excellent
224	18,000	Very Good	Excellent	Very Good
XT-218	20,000	Excellent	Excellent	Excellent
XL-325	22,000	Excellent	Very Good	Excellent
238	20,000	Very Good	Very Good	Excellent
415a	20,000	Excellent	Excellent	Very Good
XL-45	22,000	Excellent	Excellent	Outstanding
427	18,000	Excellent	Excellent	Excellent
441	20,000	Very Good	Excellent	Excellent
441a	20,000	Excellent	Excellent	Excellent
XL-361	19,000	Very Good	Excellent	Excellent

*At harvest under top conditions. Reduce 2,000 for average fertility; 4,000 for low fertility. Add 10% for planting rate.

MORE FARMERS PLANT DEKALB THAN ANY OTHER BRAND

"DEKALB" is a Registered Brand Name. Numbers are Variety Designations.



The Modern Corn for Modern Farming

BHL



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The ORIGINAL "Miracle Crop"



Fits Any Livestock Feeding Program

Best Thing That's Happened in Forage Crops Since Alfalfa

Here's the Real Miracle Crop for Livestock Feeders—DeKalb Sudax Brand SX-11, the Original Sorghum-Sudangrass hybrid. Adapted to most any area where corn or sorghum is grown, SX-11 has found wide acclaim when used for pasture, green-chop, hay or haylage. Get your share of the benefits from this unusual crop—the Best Thing That's Happened in Forage Crops Since Alfalfa.

SX-12 — Produces fast, vigorous growth of fine leaves and stems. Has a high sugar content.

SX-6 New — This variety has shown good tonnage; excellent, fast, early growth; and an abundance of leaves.

SX-5 New — This hybrid has demonstrated excellent regrowth ability, even under cooler climates. Produces lots of fine leaves.

DEKALB[®]
SUDAX
BRAND
SX-11

Amazing!
Tremendous!
Miraculous!

Grows 2 Inches or More a Day!

Tremendous hybrid vigor gives SX-11 the fast regrowth ability to provide repeated crops throughout the growing season. The photo below, of a regrowth trial in Texas, shows the regrowth power of this all-around, sensational forage crop. The actual meas-

urements of regrowth at 10, 25 and 40 days were 2 inches or more a day. Reports from farmers from North, South, East and West show similar results. SX-11 is drought tolerant, and can provide good tonnages under dry conditions when other forages may not.



FOR PASTURE

SX-11's fast, early growth, plus its amazing regrowth power, makes it ideal for summer pasture. And its high feed value helps you get more beef or milk per acre.

FOR GREEN-CHOP

Few crops compare with SX-11 green-chop for tonnage, taste and feed value. Fast regrowth with heavy tillering makes for more cuttings—more tons per acre.

FOR HAY

SX-11 can replace alfalfa for hay—both in feed value and taste appeal. Users say this great annual can produce more tonnage per acre than alfalfa. Cattle go for SX-11 hay.

FOR HAYLAGE

SX-11, put up as haylage, makes a concentrated, high quality feed. SX-11's leaves of high palatability and nutritional value can provide excellent feed for winter months.

HIGH ENERGY FEEDER SPECIALS

HIGH in Grain—HIGH in Tonnage—HIGH in Energy!



High energy silage is high in energy because it is made from hybrids which have a high proportion of grain to fodder. DeKalb's new "XL" varieties in corn, and the short forage sorghum, FS-1a, qualify to make a type of silage which puts on fast gains in the feed lot or to produce milk with a minimum of supplement.

These newer hybrids are quite disease resistant, too, so that they continue pumping nutrients and extra weight into the grain while maintaining their healthy, green

leaves with full succulence.

Silage from such plants is highly nutritious and palatable, and these healthy green plants enable cutting to be carried out over a longer period.

These short, dark green, high yielding hybrids give yields comparable to the taller, later ones, and their compact growth makes field chopping easier.

High energy silage is more palatable, more nutritious and more profitable. Many livestock men are changing to it!

PROGRESS REPORT on



HYBRID WHEAT

DeKalb—leader in hybrid wheat research—has entered the first experimental hybrid spring wheats in official trials in 1965. Dr. J. A. Wilson, whose discoveries made hybrids possible, directs work on hundreds of experimental DeKalb winter and spring hybrids. DeKalb soon hopes to offer some hybrid wheats to farmers.

IRRIGATION

Headquarters for the
Northeastern United States



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7 DAYS A WEEK
During the Dry Season**

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PROBLEM
WE CAN
HELP YOU!**

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Hale	Alcoa Tubing	Mathieson
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Rain Bird	Rain Control	Perfection
Buckner	Ireco	Flexo-Seal
Skinner	Shure-Rain	Wade'Rain
Ames	CMC	Gould
Gorman-Rupp	Ravit	Myers
Speedloc		Geehn

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AUGUST 11-12

Special! Reconditioned, guaranteed equipment is also available. Ask about our unique rental and lease-purchase plans.



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**12 for \$3. post-
only paid***

Bushy symmetrical trees have bright foliage with green to bluish tint. Ideal for group plantings or to frame doors or windows. Vigorous 4-year-old TRANSPLANTS 5 to 8 inches tall. GUARANTEED TO LIVE. 12 for only \$3. ppd.* (*West of Miss. River or south of N.C. Tenn. add 25c per offer.) Order now for fall planting! Evergreen folder free.

WESTERN MAINE FOREST NURSERY CO.

Established 1923

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A 145-Lb. Fighter! JARI SICKLE BAR

Rugged enough to cut down 1 3/4" saplings. Yet six times faster than other mowers in heavy growth. Safest mower to use in rough areas. Has 36" "reach." Perfectly balanced and self-propelled by 3 h.p. engine. Floating sickle bar makes mowing easier to handle. Write for full information. The Jari Monarch complies with Federal specifications. Jari Products, Inc.

2934 Pillsbury Ave., Minneapolis, Minn. 55408.

FALSE TEETH That Loosen Need Not Embarrass

Many wearers of false teeth have suffered real embarrassment because their plate dropped, slipped or wobbled at just the wrong time. Do not live in fear of this happening to you. Just sprinkle a little FASTEETH, the alkaline (non-acid) powder, on your plates. Hold false teeth more firmly, so they feel more comfortable. Does not sour. Checks "plate odor breath". Get FASTEETH at drug counters everywhere.

American Agriculturist, August, 1965

"Doc" Mettler Says:

DON'T MISS THE PAYOFF

Early one morning last August a woman called to ask if one of us could be at their farm by seven o'clock to inoculate a 4-H steer against shipping fever, and make out a health chart for the same steer to go to a local fair. When asked why it had to be at that particular time, she replied: "Well, the truck is going to be here to pick him up to leave for the fair at 7:30."

It was explained to her that the fair officials would not accept the steer for exhibition unless he was inoculated at least ten days prior to the opening date of the fair. She replied that her son had left all of the preparations for the fair until the last moment, and had only that morning asked her to call.

Needless to say, this boy forfeited his chance to show at the fair. He had worked a whole year getting a project ready, and missed the payoff because of his own neglect. The 4-H clubs do a good job in teaching youngsters responsibility, but when their lessons are not heeded, something like this harsh lesson may be the result.

To the boy or girl who has showed for several years I can't offer much advice that hasn't already been heard. However, I should like to offer a few words of advice to the young showman who is just starting out, or is in his first year of showing. And perhaps some of your older showmen might find the following a good review. I hope it will be of some help.

Plan Ahead

The most important thing about preparing to show cattle, or any other livestock, is to plan ahead. You are already doing this when you pick your animal as a calf, colt, lamb or pig so as to have it the proper age to be as old as possible in its class without sacrificing quality. Use the same long-distance planning as far as health

matters are concerned and you won't have trouble.

Dehorning is not necessarily a health problem, but since it is often done by a veterinarian it should be mentioned. Twenty-five years ago few animals were shown without horns; today a horned animal seems out of place. Horns may look well when clean and polished, but my own boyhood experience with a fine show heifer cracking the cap off a horn the morning she was loaded to go to the fair, and of myself sporting a black eye from a cow's horn through show season, prejudiced me forever against horns.

Have horns removed or remove them yourself with caustic as early as possible. Gouging, when properly done at from three to seven months, makes the nicest head. Be sure to tell your veterinarian he is working on a show animal when he gouges your calf so that he may take extra care. Whenever there is a slip of the gouge, and one side is not cut even with the other, it always seems to turn out to be a 4-H calf that is involved. Animals done young aren't as frightened, and calm down sooner than those done when older.

If you buy a beef calf to raise as a steer have him castrated before he reaches five months of age. Again, explain to your veterinarian that this is a show steer. Bloodless castration with a Burdizzo forceps is fine for commercial use, but for show steers to have a good full cod, actual removal of the testicles through a slit in the front of the scrotum, leaving the entire scrotum, is the preferred method. This, too, should be done when the animal is as young as possible, and of course before fly time.

Heifer calves for showing should be vaccinated against brucellosis as soon after four months as possible. Don't let this go until near show time, since it can set the

(Continued on page 27)

The Song of the Lazy Farmer



Some men are born executives, and just as long as each one lives, his leadership comes natur'ly and folks treat him respectfully. But others do

not like to lead, and folks like that we also need; they are the followers who do the work that bosses tell them to. Now it just happens that I'm one of those men born to help things run by giving orders to the drones who work with muscles and with bones. For I was born to use my brain and not to toil or sweat or strain, so ev'rybody should treat me with all respect that's due, by gee.

Mirandy, though, don't understand, that in this great and mighty land true leadership is mighty rare and should be treated with great care. She does not seem to understand that I can best lend her a hand by using brain instead of brawn; she treats me like I'm just a pawn that she's supposed to boss and scold while I do just what I am told. I am simply much too wise to use my time at pitching hay or working in some other way; it's shameful that such talent goes to waste beneath her very nose.

Exclusive!

Only a Cornell **Blue Ribbon** Barn Cleaner features the drive chain with short **Round-Oval Link** design. What does it mean to barn cleaner efficiency and economy?

Round-Oval Links shed manure and urine better, prevent corrosion. Each link is **formed**, not riveted. No crevices . . . nothing to work loose. Special short length prevents jamming, and breakage, minimizes link wear.

Only a Cornell adds all these "blue ribbon" advantages: non-slip, double-tooth drive sprocket / two-inch drive paddle to prevent manure pile-up or roll-back / exclusive reverse corner idlers or slide for greater adaptability optional. Install a Cornell barn cleaner . . . or convert your present installation. Write for complete data today.

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With Our ADVERTISERS



Several Long Island growers used the new fungicide Polyram on a trial basis last year and have reported that they plan to continue their trial of the compound this year. These growers included Leroy Anderson (manager of the William A. Zeh farm, Calverton); Richard and Clarence Anderson, Riverhead; A. H. Warner and Son, Riverhead; Joe Sieminski, Jamesport; and McKay Farms, Inc., Aquebogue.

Tougher tuber skin, excellent plant color, good tuber chipping qualities, a minimum of nozzle clogging with Polyram, and generally good handling properties were all reported in favor of the new fungicide. Gene Havens of the Long Island Cauliflower Association theorizes that the zinc in the material may be helping to correct incipient soil deficiencies of that element.

The USDA registration is for a dosage rate of 1 to 2 pounds per acre. Picture shows good results (stakes 2 and 5), with untreated check row at left nearly destroyed by blight.

Massey-Ferguson Inc. has purchased Badger Northland. This will add a whole new dimension to the equipment being offered by Massey-Ferguson, because Badger has long been known for its field harvesting equipment and farmstead materials handling machines. Badger will continue to operate under its present management as a separate subsidiary of MF.

The Kendall Company, Fiber Products Division, Walpole, Massachusetts, has developed two new metal wall dispensers for socks and large disk-type milk filters. Both are made of zinc-coated steel and painted with white enamel.

The New Holland Machine Company, a division of Sperry Rand Corporation, is entering the self-propelled grain combine market. The company's first combine, the Model 990, has already been produced; production in 1966 will be transferred to a major plant in Nebraska.

International Harvester has developed a new tractor designated as the 424, a 3-plow machine especially designated to meet the needs of farmers engaged in diversified enterprises. Power steering is hydrostatic with no mechanical linkage, which gives the operator easy handling and control. With an optional forward-reverse attachment, the tractors may be operated in eight speeds each way.

A completely organic soluble liquid-type weed killer called Urox[®] B Water Soluble Concentrate has been announced by General Chemical Division, Allied Chemical Corporation, New York, N.Y. It may be used in spray equipment and is not affected by water hardness. It is particularly applicable for industrial sites, railroad and highway rights-of-way, and other non-crop areas where quick kill of grasses and long-term residual action are vital.



Designed primarily for use in corn-growing areas, the MF 82, a new model heavy-duty mounted moldboard plow is being produced by Massey-Ferguson Inc. It has a vertical clearance of 28-1/4 inches and a new type of tripping device for maximum trash clearance. A new trash board has also been designed to go with the MF 82 plow.

Ed Forrest started farming thirty years ago in Manchester Depot, Vermont, on less than 300 acres of land. Today, he owns 700 acres and a herd of purebred Holsteins, including young cattle, numbering 120. There are approximately 70 milkers in the herd. Although reluctant to do so after putting out money for a required bulk tank, in February of 1963 Forrest had a barn cleaner installed. Working in conjunction with Cornell Manufacturing's salesman, Art Porter, and the distributor, Merton K. Batchelder of Conway, Massachusetts, a tail-to-tail installation for his 70 stanchion barn was installed and in operation in one day's time.

"After twenty-eight years without a barn cleaner and two years with it, I sure wish I'd bought one sooner," said Ed Forrest.

The new Gehl SP188 Self-Propelled Chop-King, available from Gehl Bros. Mfg. Co., West Bend, Wisconsin, is really beefed up where it counts! Its 8 chrome-edged knives are mounted on a 450-pound flywheel, front-wheel drive carries more weight up front, offsetting the engine weight in the rear to give better traction and greater flotation in soft hay fields or muddy corn rows.

The James Manufacturing Company, Inc., Fort Atkinson, Wisconsin, recently announced a new silo unloader worm gear hoist which takes the work out of raising and lowering silo unloaders.

This Jamesway hoist is available in manual or motorized models. The manual hoist can also be operated with a heavy-duty power drill if desired. The power hoist is completely motorized, making silo unloader raising and lowering fast, easy and safe. If you buy a manual hoist now you can easily transform it to the power model at a later date. The installation is fast and simple.

The H. K. Webster Company of Lawrence, Massachusetts, and Richford, Vermont, manufacturers of BLUE SEAL Feeds, has recently issued a new BLUE SEAL Dairy Manual entitled "The Science of Dairy Farming." Among the many subjects covered by the new manual are dairy farm management; selection and breeding of dairy cattle; feed requirements; production and use of forage crops; diseases of dairy cattle; and useful farm facts. A new feature is a chapter entitled "Your Veterinarian and You," which explores ways in which the dairyman and the veterinarian can work to mutual advantage. The manual may be obtained at stores of BLUE SEAL dealers or by writing to the H. K. Webster Company, P. O. Box 511, Lawrence, Massachusetts.

UREA GUIDELINES

Appearing in the May issue of the American Agriculturist-Rural New Yorker was a story about a farm where urea was being fed with silage. Over the years, urea has sometimes gotten an undeserved black eye because it has caused problems in herds when improperly used.

So that dairymen won't be tempted to use this low-cost source of protein indiscriminately, Professor Stan Gaunt of the University of Massachusetts had to say in the February, 1965, issue:

"Urea can be fed to dairy cattle as a protein substitute. Dairy cattle are able to use it because bacteria in the paunch convert it into amino acids and protein. The protein is stored in the bacteria and becomes available to the animal as the bacteria are digested.

The protein content of the grain mixture is increased 2.6 percent for each one percent of urea added to the mix. However, urea contains no energy, whereas conventional sources of protein . . . such as soybean oil meal . . . are also good sources of energy.

"On a protein basis, one pound of urea can replace seven pounds of soybean oil meal, but to make up for the energy difference it would be necessary to add six pounds of a high-energy carbohydrate concentrate like corn meal.

Thus, whenever the cost of this combination of urea and concentrate is less than for seven pounds of soybeans, this practice pays.

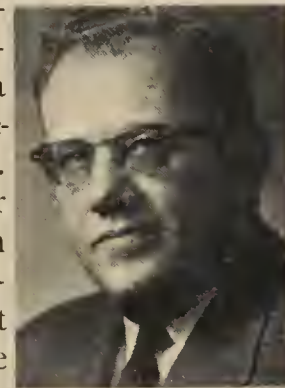
"However, urea should never supply any more than one-third of the total equivalent of crude protein in a grain mix. In fact, regulations of the American Association of Feed Control Officials require that a statement to this effect be included in the guarantee.

"Natural urea is excreted by animals. It is poisonous, and synthetic urea can be poisonous when too large quantities are consumed. Deaths in cattle have resulted from feeding improperly-mixed concentrates and urea. However, feed companies have been aware of these facts for a long time, and are doing a good job of mixing the urea thoroughly with the other ingredients. Also, urea is not palatable to cows, and is not as readily consumed as oil meals, another reason why good mixing is necessary."

One of the secrets of using urea successfully is doing a good job of mixing so that any one animal or group of animals don't get an overdose. Like so many things in modern agriculture, the right amount of urea works fine and does a good job . . . but twice as much does not do twice as good a job!

NEW ASSIGNMENT

Dr. George W. Trimberger, in charge of the Dairy Cattle Division of Cornell University's Department of Animal Husbandry, has been appointed to the staff of the Holstein-Friesian Association of America for approximately five months. Dr. Trimberger has been given leave from Cornell to conduct an intensive study of the type classification program conducted by the Association.



Dr. Trimberger

Dr. Trimberger is an accredited judge of all the major dairy breeds, and the author of a recognized text for dairy cattle judging. In his new study, he will be consulting with breeders, artificial insemination businesses, sales personnel, and Extension dairymen in many parts of the country, gathering ideas, opinions and suggestions. He will formulate specific recommendations in cooperation with the Association's Type Advisory Committee.

FIELD DAY

The New York Hereford Association will hold its annual Field Day at Deer Run Farm, Hillsdale, New York, two miles from Crayville, off Route 23. The date is August 7, and starting time is 12:30.

Deer Run Farms is the largest

Polled Hereford operation in the northeastern area, comprising over 1,300 acres, of which approximately half is in grass.

In addition to a tour of the different breeding herds, there will be demonstrations of grading cattle and a tour of extensive birds-foot trefoil plantings. Anyone interested is invited to come along.

PUREBREDS VS. GRADE CATTLE

In a study conducted by Professor J. D. Burke, New York State College of Agriculture, registered and grade cows in the same herd were compared for production. The study showed that production of the non-registered cows exceeded that of the registered in the Ayrshire, Guernsey, and Jersey breeds. There were too few Brown Swiss comparisons to draw definite conclusions. The registered Holsteins outproduced their non-registered herdmates by an insignificant margin.

Similar results were found for both artificially and naturally sired cows. Burke concluded that the production gap between registered and grade cows had been closed through the widespread use of artificial insemination.

He suggested the following for consideration: (1) place all registered herds on test; (2) carry out selective registration based on milk production (cancel registrations on cows producing less than 70 percent of herd average); (3) register grade cows that exceed breed average or some reasonable average.

American Agriculturist, August, 1965



CHAMPION PIE BAKERS!

by Augusta Chapman



It's "Cherry Pie Time" in Grange halls all over New York State, as contestants in the baking contest sponsored jointly by American Agriculturist and New York State Grange compete for honors. All Subordinate contests have now been held, and many Pomona winners have been chosen to represent their counties in the State finals, held when State Grange meets at Saratoga Springs in October.

Following is the list of county winners to date:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Albany	Bethlehem	Mrs. Clarence Klahn
Allegany	Canaseraga	Mrs. Charles Neetz
Broome	Upper Lisle	Mrs. Beverly Marsh
Cattaraugus	Franklinville	Mrs. Miriam Howe
Cayuga	East Venice	Mrs. Sarah Huff
Chautauqua	Clymer	Mrs. Clayton Damcott
Chemung	Seeley Creek	Mrs. Sidney Shepherd, Sr.
Delaware	Bloomville	Mrs. Leon Burdick
Dutchess	Poughkeepsie	Mrs. Harvey Russell
Erie	Wyandale	Mrs. Lillian Stetler
Genesee	Elba	Mrs. Floyd Churchill
Greene	Loonenburg	Mrs. Edith Albright
Jefferson	Adams Center	Mrs. Nina Fredenburg
Livingston	Groveland	Mrs. Craig Moore
Madison	Smithfield	Miss Naomi Rodda
Oneida	Clinton	Mrs. Edna Beck
Oswego	Palermo	Mrs. Susie Grant
Putnam	Yorktown	Mrs. Ann Glaser
Westchester	Franklinton	Mrs. Josephine Hallenbeck
Schoharie	Olive Branch	Mrs. John Bailey
Schuyler	Monticello	Mrs. Lillie Morgan
Sullivan	Berkshire	Mrs. Edgar Leonard
Tioga	South Lansing	Mrs. Goldie Ruzicka
Tompkins	Huguenot	Mrs. David DuBois
Ulster	Stony Creek	Mrs. Ruth Bormann
Warren	Shushan	Mrs. William Hill
Washington	Newark	Mrs. Edith Wilck
Wayne	Guyanoga	Miss Bessie Moshier
Yates		

used to be a school teacher and started in at the whopping salary of \$8.00 a week!

Our other octogenarian is Mrs. Susie Grant from Oswego County. A Grange member for 47 years, Mrs. Grant is Master of Palermo Subordinate Grange this year. Sixteen cherry pies were entered in that contest.

Naomi Rodda, R. D. 1, Morrisville, Madison County, is just 17 years old and won her title over ten other pie bakers.

Schuyler County has a repeat winner in Mrs. John Bailey who placed third in the State Gingerbread Contest in 1963. Mrs. Bailey wrote me, "I don't believe I will ever get over the shock of receiving such a grand prize as my Magic Chef Gas Range. It is one of the nicest things that ever happened to me. I am very happy for the opportunity to represent Schuyler County again."

Last year, Mrs. Bailey's new son, Roy William, picked May 13 for his arrival, so she was unable to enter the Yeast Coffee Cake Contest.



A lot of work goes into these baking contests at every level, and I appreciate the fine cooperation of each Service and Hospitality chairman in arranging prizes, providing judges, and taking care of the many details necessary for a successful contest. Next month I hope to have names of the remaining county winners, so our list will be complete.



MRS. C. KLAHN
Albany County



MRS. B. MARSH
Broome County



MRS. M. HOWE
Cattaraugus County



MRS. S. HUFF
Cayuga County



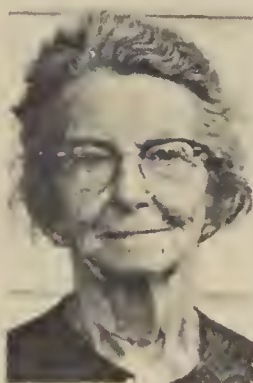
MRS. H. RUSSELL
Dutchess County



MRS. F. CHURCHILL
Genesee County



MISS N. RODDA
Madison County



MRS. S. GRANT
Oswego County



Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Plattsburgh	WEAV-FM	99.9 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

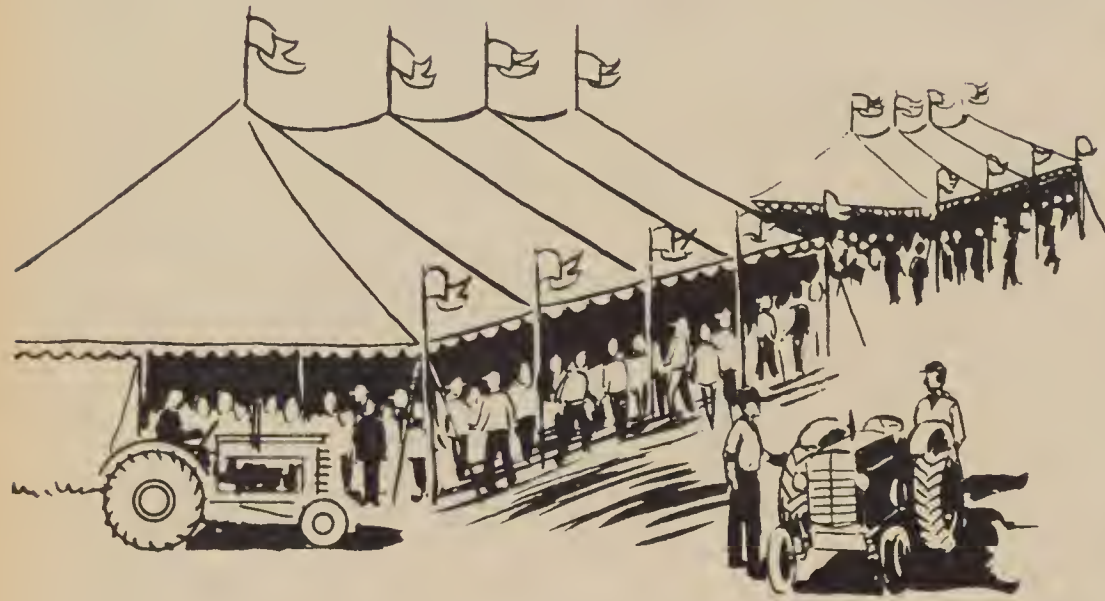
Amsterdam	WAFS	1570 kc.	Niagara Falls	WHLD	1270 kc.
Auburn	WMBO	1340 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oswego	WOSC	1300 kc.
Boonville	WBRV	900 kc.	Plattsburgh	WEAV	960 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.

Northeast Radio Network

Ithaca, New York

For an Investment in Time with a SURE PAY-OFF

PLAN NOW to take in NEW YORK'S BIGGEST SUMMER EVENT

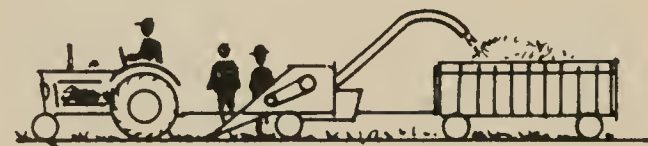


FARM MATERIALS HANDLING EXHIBITION and POTATOFIELD DAYS, AUGUST 11 - 12

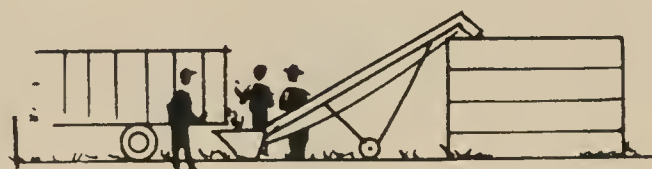
SEE POWER FARM EQUIPMENT IN ACTION



No matter what your line of farming may be, there'll be something of interest. More than one million dollars worth of farm machines will be on display and many will be put through the paces in actual field demonstrations. You'll see a full line of tractors and almost every type of auxiliary equipment from tillage tools to harvesting machines. Among them will be a new two-row potato harvester, a new sugar beet harvester, an air-blast chemical sprayer and several new style forage harvesting and handling machines.



Materials handling on the farm becomes more and more important in the fight for higher output per hour of labor — and materials handling will be a long suit at the Field Day. You'll get the story on new ways to handle feed for maximum efficiency and minimum effort. Manufacturers will display and demonstrate all types of forage handling and carrying equipment from wagon boxes to silo unloaders. Take your pick of the two days — or take part in both — and you'll have plenty of time to get the full story.



The Field Day hosts operate two farms totaling more than 2700 acres — plenty of room for many other important farm interests. You'll see demonstrations of practical ways to use farm chemicals. The fertilizer story will be told. There will be silos and milking machines on display, and even a booth on dairy breeding. Many farm-use products ranging from scales to lightning rods will be displayed. Make it a point now to visit the Field Days — and profit by your experience!

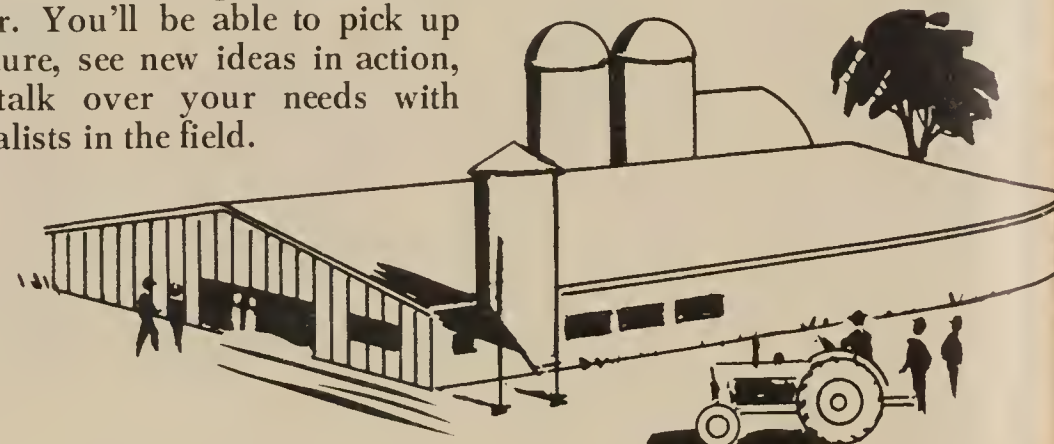
EXTRA - WATER-UP SHOW

Wondering what to do about the water problem? Then make it a must to visit the outstanding Water-Up show. You'll get a fountain of new ideas on how to meet your needs practically and effectively. Irrigation equipment, pumps and watering systems will be on display, and experts in the field will be on hand to discuss your individual needs. Whether you're a dairyman, crops farmer, fruit or vegetable grower, a visit to this section can more than pay for the trip.

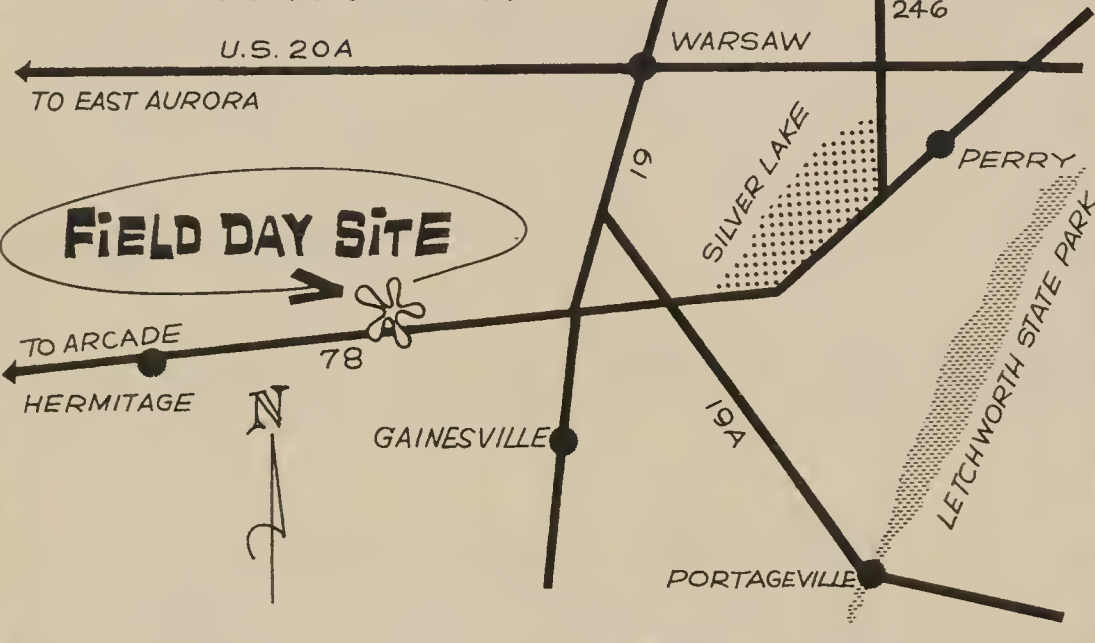


NEW FEATURE: FARM BUILDING INFORMATION CENTER

If you're considering putting up a new building, replacing an old one, remodeling an existing building or adding on to what you already have, you'll pick up some fine pointers at the Farm Buildings Information Center. You'll be able to pick up literature, see new ideas in action, and talk over your needs with specialists in the field.



LOCATION OF 32ND ANNUAL
FIELD DAY AND FARM MATERIALS
HANDLING EXHIBITION
WYOMING COUNTY



PAUL McCORMICK &
WM. GOZELSKI FARM
ROUTE 78
GAINESVILLE, N. Y.
(SEE MAP)

NEW MACHINES, NEW MODELS, NEW FEATURES

More than 10 acres of farmland will be covered by displays of the latest makes, models and styles of farm equipment from pumps to plows, from tractors to trailers. Most major manufacturers will be on hand. They'll have the newest versions of standard makes and models and will introduce several new concepts in farm machinery — models just now getting into production. If you have any plans at all to buy new machinery, the Field Day will provide a golden opportunity to shop around for the make and model that's just right for your operation.



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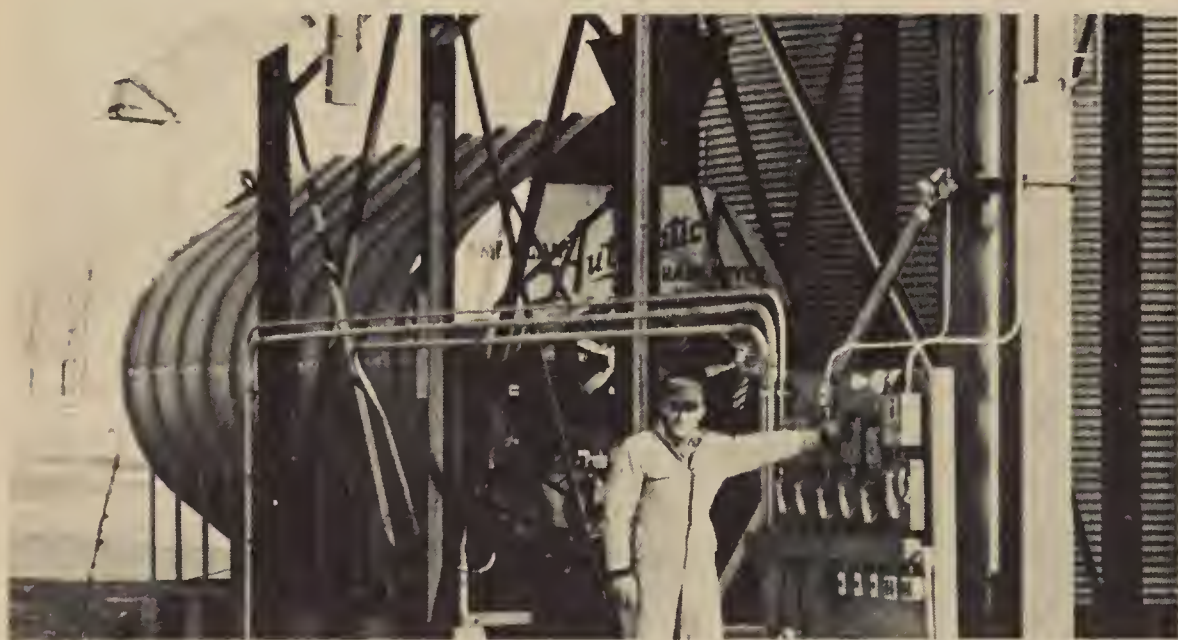
Local Farm Business Paper of the Northeast

BHL



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"This dryer has the capacity I want with a four-row corn head on my combine. Therefore I'm not waiting on my dryer so I can put in another load. I was running behind, so my neighbor came over to help me combine with his four-row combine. We never did catch up with this dryer. At the same time, the corn was testing 19-20% in moisture. This dryer just can't be beat for my money.

"I farm 860 acres and plant 415 acres of this in corn each year. I feel that I need a dryer with this capacity for my crop. I dried 35,000 bu. of corn in 112 hours at a cost of \$.0114 per bushel.

"This is a wonderful set-up. Since the dryer is totally automatic, it saves me the cost of hiring an extra man, in addition to my regular one at harvest time."

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NEWS AND VIEWS FROM NEW YORK AND PENNSYLVANIA

Gas Engines — The 1965 annual reunion of the Pioneer Gas Engine Association, Inc. will be held July 30 and 31 and August 1 at the Mendon Pioneer Museum, Honeoye Falls, New York.

Association membership dues are \$2 a year. For more information contact Donald A. Luteyn, Sr., 424 E. Main Street, Palmyra, New York 14522, president; or Mrs. Dorothy B. Smith, secretary, Forest Grove Trailer Park, Ontario, New York 14519.

Manure Dehydrating Plant — The first manure dehydrating plant in Suffolk County is now in operation at the Circle M Farm, Route 109, Medford, New York. Larry Makransky, owner, has been trying to find a better way of marketing the manure from his dairy farm; now he has a Heil Dehydrator in operation that is capable of removing 5,000 pounds of moisture per hour, grinding the dried product, and bagging it so it can be sold as high-class fertilizer and soil-conditioning product.

Largest Potato — A nationwide search to find the largest potato in the U.S.A. is now under way. The contest is open to any farmer who believes he has an exceptionally-large potato. The prize is a \$100 government bond. All entries should be sent during the two-week period January 1 to January 15, 1966, to Potato Chip Institute International, 940 Hanna Building,

Cleveland 15, Ohio.

Agricultural Building — Pennsylvania Department of Agriculture has a home of its own for the first time in its 70 years of existence. The new building, with modern laboratories and other improvements, will enable the Department to expand services to farmers and to all consumers.

Pro-Fac — A four percent dividend on stock and higher earnings for member distribution are reported by Pro-Fac Cooperative, Inc., Rochester, New York, in its annual report. In announcing the four-year-old cooperative's earning figures, President Gerald F. Britt disclosed that Pro-Fac will pay member growers 100 percent of commercial market value for the products they delivered to the organization during the year. In addition, the cooperative reported earnings of \$358,281 to be divided among its 500 members in the form of cash and retain certificates.

Honored — "Poultryman of the Year" in Pennsylvania is Carl O. Dossin of State College, named by the Pennsylvania Poultry Federation. Mr. Dossin retired July 1 as professor and chairman of poultry science extension at Penn State.

Sales tax

(Continued from page 18)

than put into an all-inclusive charge.

Still unsettled are a number of knotty questions . . . such as the status of charges made by custom operators who harvest grain or fill silos for their neighbors. "Fabricating and processing" are taxable functions, but it is not the intent of the law to levy the sales tax on charges made by farm custom operators. It may be some time before this and other final interpretations are made.

The tickets to non-athletic functions held by a charitable, religious, or educational organization are nontaxable . . . if the organization is on the Internal Revenue Service list as being eligible to receive income-tax-deductible gifts. Certain veteran, firemen, and police groups share this exemption.

Revenues

Expected annual sales tax revenues amount to \$1,200,000,000 . . . six hundred million going to the State and another six hundred million collected by the State to be returned to local areas already having a local sales tax.

Farmers will be liable for collecting some sales tax revenues . . . on Christmas trees (non-food item) retailed at the farm, for instance.

It's too early to nail down the answers to every question on how the new law will affect rural New York. For more answers, contact the Sales Tax Information Center, telephone 518-FL-72780, or write to Box 5028, Albany, New York 12205.

American Agriculturist, August, 1965

DON'T LUG IT...



LET IT RIDE!!



DON'T MISS THE FARM MATERIALS HANDLING EXHIBITION



HELD IN CONJUNCTION WITH
THE EMPIRE STATE
POTATO CLUB'S 32nd
ANNUAL FIELD DAYS

At the McCORMICK
and GOZELSKI farms

ROUTE 78 NEAR GAINESVILLE, N.Y.

AUGUST 11-12

- See all the latest materials handling equipment you need for profitable farm production!
- Talk with qualified representatives who know their business — and yours — about your individual problems!
- Enjoy a gala day with your family . . . friends . . . and neighbors.

FREE ADMISSION

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New York Farm Equip. Club
New York Farm Equip. Dealers' Assoc.
Successful Farming Magazine

Mettler

(Continued from page 20)

animal back in growth and "bloom."

If you intend to go to the larger fairs, or to travel far, ask your veterinarian if he might advise vaccinating against virus disease (IBR and virus diarrhea) and leptospirosis a few weeks ahead of the fair season. This is more important in the beef breeds than in dairy, but it is something to think about. Ten-dose vials of virus vaccine is the smallest size, so if your veterinarian knows ahead he might be able to do your animals from part of a vial that he has left over from a larger herd.

At least a month before show time contact your veterinarian so that he will know you have animals for shipping fever (H.S. or hemorrhagic septicemia) inoculation and health charts. Tell him when you will be around to help, and how many animals you have. Again, he will probably want to work it in with some other call nearby and must know ahead. When he arrives, have all of the following information for him on a sheet of paper in legible writing: animal's birth date, vaccination date, all ear tag numbers or tattoos, registration name, registration number, breed and sex. Also, he will need to know the date of the last herd TB test, brucellosis (blood) test, and last Ring test date on a dairy herd. If you are an individual owner and don't have

herd status your cattle will have to be TB tested.

Hogs have to be vaccinated against cholera within a year, and not less than thirty days prior to the fair, or have anti-hog cholera serum within ten days of the opening of the fair. Here, too, your veterinarian may suggest inoculation against erysipelas with bacterin, and against leptospirosis for your animals' own protection.

Sheep don't need any injections, but do need to be inspected by a veterinarian and health papers signed.

For health reasons, contact your trucker far enough in advance of the fair so he has time to properly disinfect his truck before picking up your animals.

Use Your Own

Once you get to the fair be sure to use your own pails for water and feeding. If a cow is to be milked by a milking machine used on animals not part of your herd, be sure it is rinsed well with an antiseptic solution before it is placed on your animal. A friend should be no more offended by your doing this to a machine after it has been on his animals than if you refused the loan of his toothbrush.

No animal should be at a fair with any skin disease . . . but don't borrow or loan brushes, combs, or "wipe rags."

Be careful that your animals don't refuse food or water then suddenly overeat or drink. A calf that drinks a lot of cold water may

urinate blood. Don't be alarmed at this, but if it continues have the fair veterinarian check for you.

Carry a thermometer with you in your show box and learn how to use it. Blanketed cattle in a hot barn or tent may go over 102.8F. (which is high normal), but if a temperature goes to 104F. and stays there, have your animal checked.

Some first-aid treatment for simple wounds should be in every show box. One of the purple oils used for wounds is good. Alcohol can be used to remove the color before showing.

If you have never slept in a cow barn before, the first night you will think half the animals in there are dying. Don't let moans and groans and slight bloats of heavily-fed show animals scare you. Experience here will be your best teacher.

One last word has nothing to do with the animals' health but your own frame of mind. Try to win . . . but if you don't win the first time out it may be better for you. If you win the first time, sooner or later you will lose, and then it will be harder to take. Winning is always more fun when you know how it feels to lose.

Dates to Remember

August 11 - Annual Farm & Home Field Day, University Substation, Georgetown, Delaware.

August 13-14 - 18th Annual New York State Woodsmen's Field Days, Boonville, New York.

August 17-18 - Springfield Bank for Cooperatives annual meeting, Motel Extension 36, New York State Thruway.

August 20-21 - Vermont Lumberjack Roundup, Branbury State Park, Lake Dunmore, Vt.

August 24-29 - Pennsylvania Poultry Federation Summer Festival, Hershey Park, East Harrisburg.

August 27-28 - Forage Progress Field Days and Pennsylvania State Plowing Contest, Milton Hershey Farms, Hershey.

August 29-31 - Endless Mountains Folk Festival, New Milford, Pennsylvania.

August 31-September 6 - New York State Exposition, Syracuse, New York.

September 8 - Allegany-Steuben Holstein Club 50th Anniversary Sale, Hornell, New York.

September 10-12 - Flight of New York and Vermont Flying Farmers to Ontario Flying Farmers Convention, Drawbridge Inn, Sarnia, Ontario, Canada.

September 11-12 - Yorktown Grange Fair, Yorktown Heights, New York.

September 12 - American Meat Institute's 60th Annual Meeting, Americana Hotel, New York City.

September 13-17 - Pennsylvania All-American Dairy Show, Harrisburg.

September 18-26 - Eastern States Exposition, West Springfield, Massachusetts.



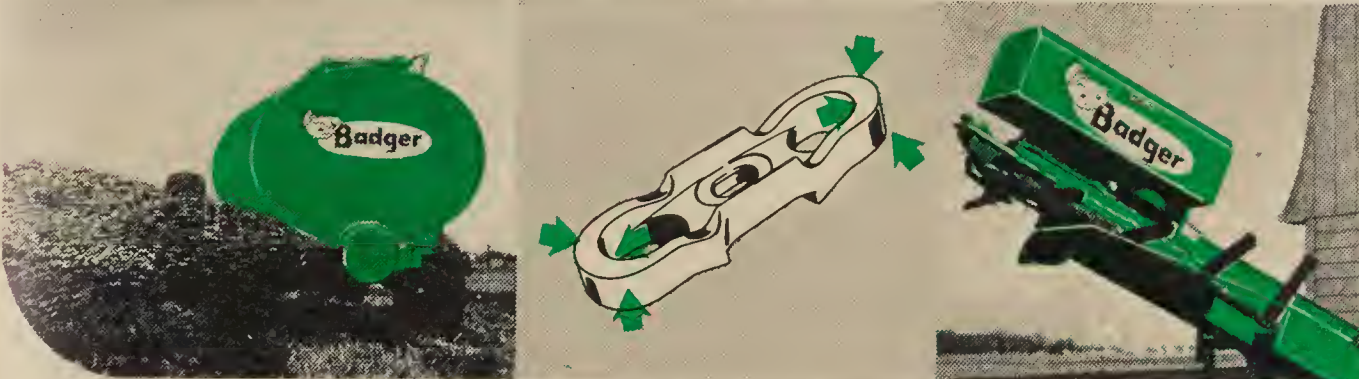
Badger Liquid Manure System accumulates manure from stanchion barn, free stalls, feeding lots, slotted floors. 2500 gallon-a-minute pump loads field tank fast,

serves as its own storage tank agitator, eliminates need for daily tank agitation. Non-clog pump handles straw, other bedding. PTO or electric powered.

Field spreading tank holds 1400 gallons, cuts number of trips to field. Unloads in less than 4 minutes. Impeller throws manure in uniform 25-foot swath low and to one side to cut wind drift. Makes spreading fast, easy, clean. Rugged, rust-resistant, long-life tank.

Badger's new Dura-Forged barn cleaner chain is the strongest link made. Beefed up, takes extra pin wear inside, extra shoulder wear outside. Other Badger chains available too—one just right for your barn.

Elevator for loading conventional manure spreader is box beam construction. Two transmissions from which to choose. Chain-saving paddle tip-up, wear heel on each paddle. Heaviest-duty corner rollers and curves.



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For dairy, beef, hogs, poultry.

Never before was it possible to make manure handling such an easy, push-button job. Simply team up a Badger Liquid Manure System with America's No. 1 Badger Barn Cleaner.

With dairy cattle you can end daily manure hauling. Haul as few as 3 or 4 times a year, at dates of your choosing. (One man can haul 65,000 gallons in a single day!) End, too, the problems when handling slurry, soupy manure.

With beef and hogs you can put an end to sloppy feeding floors. You can clean farrowing houses and confinement-feeding setups mechanically. With any livestock, you can improve farmstead sanitation, save valuable nitrogen, phosphate and potash content of manure.

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| ☐ Bunk Feeders | ☐ Silage Distributors | ☐ Forage Blowers |
| ☐ Full Color "Automatic Feeding Systems" book | ☐ Badger Dealership | |

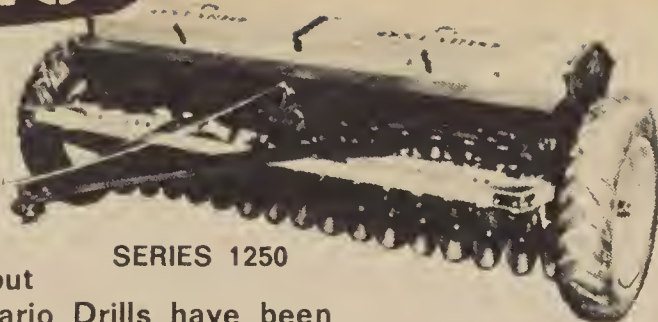
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IRRIGATION SYSTEMS

Information-State Problem

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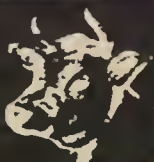
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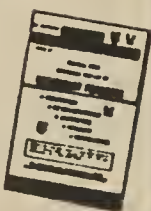
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HEAVY ON CORN

We grow 135 acres of corn and feed it to our Holsteins. The cows have free stalls, and are fed in bunks under cover.

We buy hay if needed. We aim for 100 percent corn silage for roughage, but when it appears that it won't last, we feed hay at a rate of up to 6 pounds per cow per day.



WINSLOW WORDMANSIE

Corn silage is piled on concrete slabs 100 by 40 feet, and covered with black plastic. As far as I can see, we have no spoilage up to the middle of April, and we keep it at a minimum in the summer.

It doesn't take long to feed the cows. A tractor and scoop put the silage in a self-unloading wagon and then we use a tractor and scoop to spread the concentrate on top of the load. As the self-unloading wagon distributes the silage in the bunker, the grain is well mixed with the silage.

We divide the herd into two groups, with the heavy producers and fresh cows in one group so we can add more concentrate to the silage they eat.

Two men and I care for the herd of 125 cows. However, I am away some, and it would be possible for two men to do it. — Winslow Wordmansie, Preston, Connecticut

formed by the "merger" of two automotive rear ends, purchased bucket arms, and a bucket Jim built himself. One 10-gallon milk can serves as a gasoline tank; another was modified to be a hydraulic fluid reserve tank.

With this rig the paved areas can be slicked up in about 20 minutes. Steering takes a bit of experience... it's steered only by its brakes. The two wheels on each side are braked together, turning the machine a bit like a crawler tractor when one track stops. The concrete is usually slippery enough for easy turning, but it's somewhat of a problem on outdoor paving after a hard rain has thoroughly washed it!

A tine bucket replaces the scrap- ing bucket so the machinery can be used to clean out once a year the manure pack in the loafing barn. — G. L. Conklin

POULTRY FARM

When our new house is filled this fall we will have 82 thousand layers in cages. The birds are put three hens to a cage when they are 21 weeks old, and stay in them for an average of 14 months.

I have been in the chicken business for 30 years, and have seen some amazing changes. I understand that we had the first completely-automated house. I housed 45,000 hens, and four people cared for them, including bringing the eggs to the processing room and washing them. The new house just completed is 452 feet long and 45 feet wide. It is completely windowless, and we figure that two man-hours a day will care for 28,000 layers.

We have a house where we rear pullets, buying them as baby chicks. We raise 30,000 at a time, and in all will grow 82,000 this year. We want pullets coming into production at different times to even out our market problem. For example, we don't want too many pullet eggs at one time.

At the start I was prejudiced against cages, feeling that they didn't lessen labor unless care was completely mechanized. But now,

(Continued on page 29)

HOME-MADE AND HANDY

Elmer Peck and son Jim of Newark, New York, have a 28 x 70-foot tool storage that has a heated shop on one end. It boasts an electric acetylene welder, as well as a complete line of tools necessary for equipment maintenance. The Pecks use loose housing for their 62-cow herd and have lots of paved area to keep clean.

So Jim planned and built a machine especially suited to their needs... and economical to boot! It has a Ford six-cylinder automobile engine, four wheel drive



Elmer Peck guides the home-made rig for cleaning the barn.

American Agriculturist, August, 1965

with a good cage, a good hen, and good management, as good results can be obtained as with birds on a floor — and with greater profit.

Poultrymen will always have problems. I believe that egg production and methods will improve, but more slowly than in the past.

Management is the big thing. Housekeeping and sanitation must be meticulous. Disease is a problem, with leucosis being the worst. We still lack knowledge about the disease, but have learned to live with it.

Marketing is important. We grade and pack eggs, and will deliver some to chain stores and other buyers. I feel that the independent producer needs to find an outlet that's not completely tied to the shell market. — *Phil Seidel, Ghent, New York*



Phil Seidel with his pullet-growing house in the background, Capacity 30,000. In 1965 it was filled 2½ times.

UP MILK PRODUCTION

I have no desire to increase the size of our 80-cow herd, but I do hope to up milk production per cow, mainly by better feeding . . . also to use labor more efficiently and make the job a bit easier.

To start along this path we built a second concrete stave silo this summer. A good piece of land near the barn that was in pasture has had a few rough spots smoothed out, grew sudangrass this summer and will be in corn in 1966. We have good pasture some distance from the barn which we spent time and money in improving, but now I feel it's too far for cows to go. So we pasture the young stock there, and they do well all summer without grain.

Next year I plan a building to contain a bunk for automatic silage feeding. Now we have our overhead auger that dumps silage in a cart in front of each string of cows.

In 1967 we hope to make a change in milking procedure. At present we have a dumping station and will go either to a pipeline or milking parlor.

We will be growing less hay. Now we bale, which goes fine in the field but it takes two or three men in the barn to keep up with the baler. — *Bernard Potter, Truxton, N.Y.*

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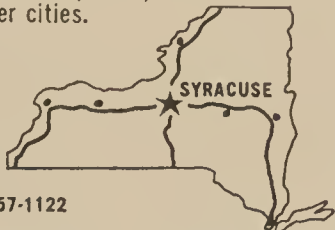
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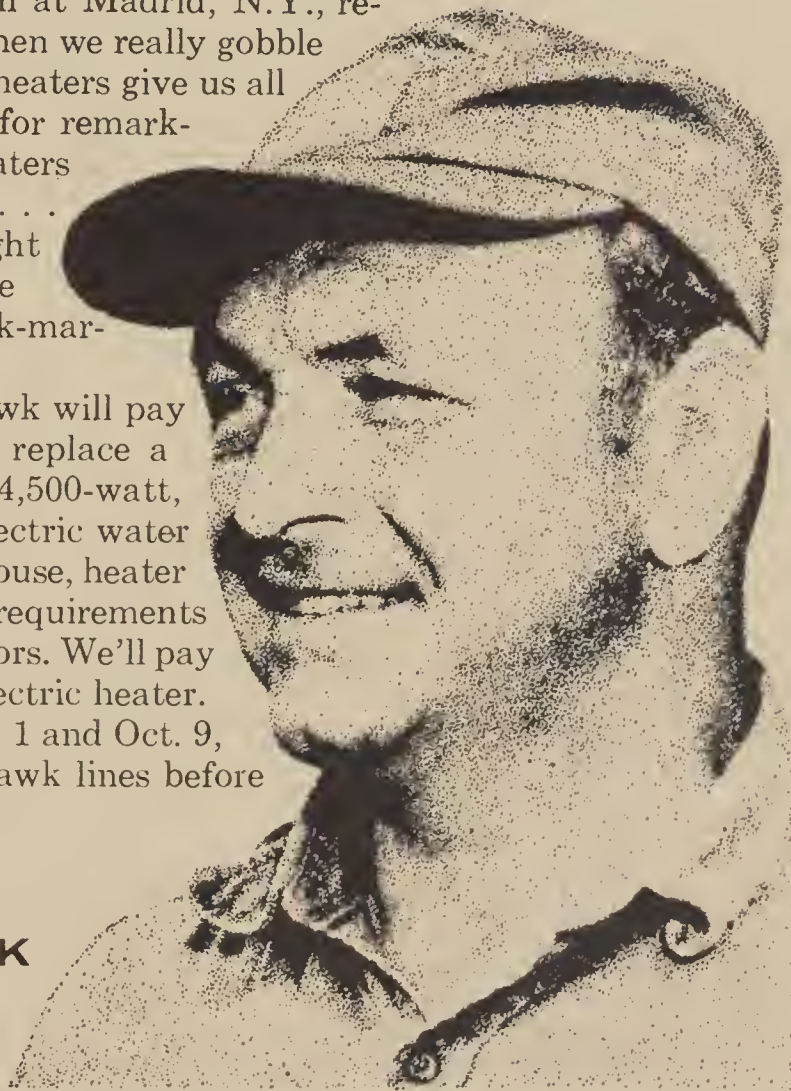
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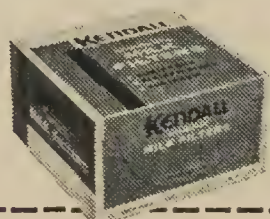
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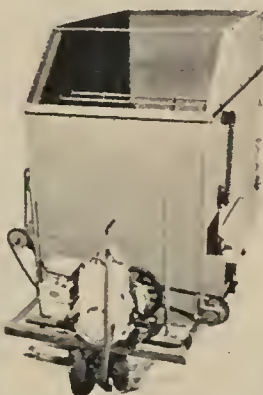
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SKIP-A-DAY FEEDING

PULLET FEEDING has a new wrinkle . . . the Skip-A-Day program. As reported in the "Arbor Acres Review," here are guidelines for the method that some growers claim provides remarkable uniformity of birds in a flock:

1. Start skip-a-day feeding method at 10 to 11 weeks of age, whichever fits your vaccinating or moving schedule best.

2. Double the amount of feed being used per hundred birds in restricted feeding program and subtract two pounds to determine the amount to be fed in one day. (Birds may not consume this entire amount the first day.)

3. Do not feed the next day.

4. On feed-days, it is absolutely necessary to keep feeders running until birds have consumed all the feed in the troughs. Do not interrupt operation of feeder, since aggressive birds will be reattracted to feed each time feeder is started.

5. On the "off" day, feed two pounds of oats spread in the litter. Distribute this over three feedings during the day to keep birds active. Grit should be fed once a week on a feed day in an amount which birds will clean up in one day.

6. Stay on program until birds reach 5 to 10 percent production or 24 weeks of age, whichever comes first.

7. Watch birds closely and debeak or spec at first sign of picking.

8. If birds become sick, switch to full feeding every day until they improve, then return to every-other-day feeding.

9. Suggested feeding program for table egg layers:

(a) 10-14 weeks — 21 pounds per hundred; two pounds oats per hundred on off-days.

(b) 14-16 weeks — 22 pounds per hundred; two pounds oats per hundred on off-days.

(c) 16-20 weeks — 23 pounds per hundred, two pounds oats per hundred on off-days.

(d) 20-24 weeks or upon reaching 5-10 percent production, whichever comes first . . . change to laying ration; feed 26 pounds per hundred on feed-day; two pounds oats per hundred on off-day.

10. After birds reach 24 weeks of age or 10 percent production, switch to daily full feeding of layer ration. Two pounds of oats per hundred may also be fed daily.

11. If daylight at 24 weeks or 10 percent production is less than 14 hours, artificial light should be used to provide that amount.

12. If supplementary calcium is required, oyster shell may be fed beginning at 18 to 19 weeks. Aver-

age amount is two pounds a week per hundred birds, which should be fed on a feed day. Grit should be full-fed after birds reach 10 percent production.

Don Moore, farm manager for Arbor Acres South Central Farm at Albertville, Alabama, gives this explanation of the program:

With controlled feeding, each time feed is offered the more aggressive birds are the first to satisfy their appetites. They get not only what they need, but also all they want, which usually is an excessive amount. At the same time, the bulk of the flock is feeding normally. However, the timid birds are awaiting their turn. In some cases, when their "turn" comes, there's less than an adequate amount of feed, if any at all.

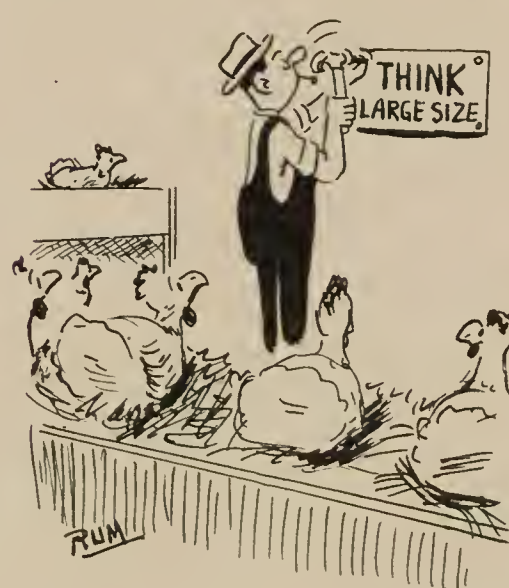
Moore found the percentages usually to be something like this:

Twenty-five percent of the birds get too much feed, 50 percent get the right amount, 20 percent have less than they should, and five percent suffer from malnutrition. This would account for the unevenness in the appearance of a flock and the time when average sexual maturity is reached, influencing reproduction performance.

And, like the weakest link in a chain, total flocks were no more resistant to disease challenges than the very susceptible five percent suffering from malnutrition.

But with the skip-a-day plan, there is sufficient feed left for even the most timid after all others have taken what they want. Likewise, those aggressive pullets which might have eaten twice as much as normal when fed each day, may still overeat, but cannot eat in one day twice the excessive amount which they could eat in two days.

The oats serve two purposes. The major purpose is to offset any stress factors that might arise from the inactivity caused by lack of energy input. A secondary effect is to keep the litter in good condition, eliminating a possible source of health challenges.



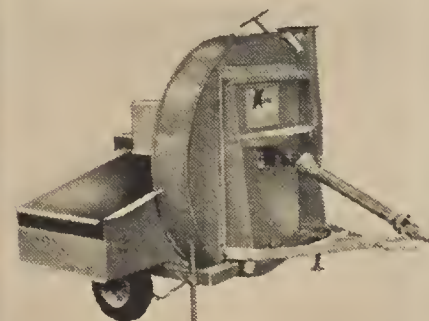
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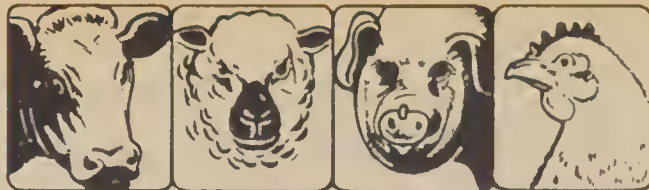
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NO TRESPASS SIGNS—On weatherproof Tag, with name and address: 200—\$15.00; 100—\$9.50; 50—\$6.50 postpaid. Chic Press, Monticello, New York.

ALUMINUM "POSTED" SIGNS. Priced from 15¢ per sign. Write for free sample. John Voss, 206 Elmbrook Drive, Manlius, N. Y.

SITUATION WANTED

MIDDLE AGED HOUSEKEEPER. Excellent cook. Would make good Companion. Box 369-EC, Ithaca, N. Y.

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GRANGE SILO, ROOFED, 14 by 45, used little. Price \$500. Joseph Mangeot, Fulton, N. Y.

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SPARROWS EAT PROFITS! Catch them with new improved trap. Free particulars. Roy Vail, Antwerp 10, Ohio.

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TRAVEL

ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 367, Ithaca, N.Y. 14851.

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TOBACCO

TOBACCO! Homespun Smoking - Chewing. Samples 10¢. Fred Stoker, Dresden, Tennessee.

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WANTED — HORSE DRAWN CARRIAGES. surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

ANTIQUE CAR, REWARD information if purchased. Box 722, Paterson, N. J.

WANTED: STANLEY STEAMER SPRINGS—especially 20 H.P. Springs full elliptic. They have bent clips extending over the edge of the adjoining leaf. Frank Cooke, Inc., 59 Summer Street, North Brookfield, Mass.

WOOL

SEND WOOL TO US for beautiful, warm blankets. Free literature. El Dorado Woolens, Inc., Eldorado, Texas.

WOMEN'S INTEREST

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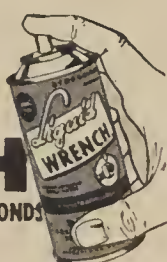
RAISE RABBITS for us on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

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Standing (l. to r.): Richard Outhouse, Canandaigua; Laurence Hansen, South Valley; John L. Calhoun, Hoosick Falls; Ronald Wetherwax, Wyoming; Floyd Somes, Memphis; and Dallas Prouty, Fort Ann.



Editor Gordon Conklin receives a Freedom's Foundation Award from W. C. ("Tom") Sawyer, senior vice-president of the Foundation. The Award was for editorial defending the United States and what it stands for.

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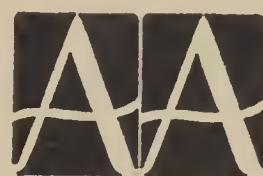
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American Agriculturist
and the
RURAL NEW YORKER

BOX 369 . . . ITHACA, N. Y. 14851



SENT ANY SHIPS OUT LATELY?

by Hazel Andrews

THE KITCHEN RADIO was droning along softly with no one paying any particular attention. Suddenly, entirely out of context, a sentence came across to me where I was peeling potatoes . . . "Many a man is waiting for his ship to come in when he hasn't even sent it out yet."

H'm-m-m! Thinking of the possible results, I determined to send out plenty of ships thereafter. So every day I launch a few. Most of them are sailing ships, powered by various colored, five-cent sails.

One may go to a despondent friend; it returns with a note of appreciation. One carries a check to pay a bill; it's sure to make that merchant happy. One takes a message of cheer and encouragement to someone in sorrow. Another carries the family gossip in the neighborhood to a minister grandson in far-off North Dakota, helping to keep strong the ties of the old home and family. When that particular ship comes back, it will bring the latest picture of a new great-granddaughter.

A cargo ship with eight five-cent sails takes a package of chain-store magazines to Portuguese West Africa every few months, bringing many ideas for new projects to a mission school, along with new recipes and stories from a well remembered land.

Freighter To Mexico

Another freighter with books, puzzles and games goes to dock in an orphanage in Guadalajara, Mexico. These bring pleasure and friendship to a dozen and a half orphans gathered together from unbelievable situations by a retired school teacher from California. She has made them clean, healthy and happy, and given them shining faces.

Some days a ship goes out with a check and brings back a book or two. Often four-cent canoes float away saying "Thank you" to someone who's sent a happy boat to my landing.

Sometimes a ship can change a person's whole life. Once I heard of a young friend who was much disturbed because she was about to have a third child. She felt that two were enough. I sent her such a shipload of encouragement that she went on to have nine children! I often wondered if I were partly to blame. But they were the most remarkable family of handsome, well-behaved youngsters one could imagine.

Each year a little ship goes to a nursery firm and comes back laden with seeds and bulbs that fill my garden and my heart with beauty and fragrance. The overflow graces church, hospitals and other homes.

The seeds of sage one ship

brings me grow to make several quarts of sifted, dull green, aromatic seasoning for all my friends for their Christmas turkeys. A whole fleet, four hundred and fifty strong, leaves here with Christmas cards containing the small packets of sage and my holiday message. The destinations range from Africa to Turkey to England, with detours to Canada, Mexico, Australia, and side excursions to many parts of the United States.

One small ship went to a well-known business magazine. It brought back a list of reputable schools for home study. Another

boat promptly left for one of the schools. Then, a whole flotilla sailed back and forth, some with assignments and some with criticisms. All were interesting and, we hope, profitable.

Ships with several five-cent sails should be setting out from here to various and sundry editors' ports, carrying young hopefuls fresh from the typewriter. They bring back a reasonable quota of the rejection slips that prove "at least I'm trying." Some day, I'm sure, a check will come in to prove that it pays to keep on in the maritime business!



NEW PATTERN CATALOG!

Send now! It's the way to see 350 views of fall's smartest styles and get a gift coupon for ONE FREE PATTERN. Choose it from 350 design views in this exciting Fall-Winter Pattern Catalog.

Send 50 cents to AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011

THE OUTDOOR ROOM

by Nenetzin R. White

Outdoor rooms are gaining in stature; they are also changing in form. In essence, they are going back to the enclosed, walled, private gardens of Spain and the Old World. These walled gardens or rooms gave necessary security and in addition offered privacy and a feeling of serenity. They continued in vogue in Europe long after the protection afforded by the walls was needed.



Japanese style entrance to outdoor room.

China and Japan have always used enclosures, and from them we learn the beauty of simplicity. Plain walls, different levels, and seats or benches are used as integral parts of the garden. Their Bonasi (dwarf plants), water, gravel, rocks, and nicely shaped wood fit admirably into these sparsely planted, simple outdoor rooms. Our first picture shows a Japanese treatment for a gate or entrance.

Louvers can be used to give privacy, but be sure they are slanted into your prevailing winds so the breezes may enter. Louvers that can be moved (like old-fashioned house shutters) are even better. They can be opened to summer breezes or closed to shut out cold winds, thus extending the use of your private outdoor room. You will find it is often necessary to provide a means of ventilation in a walled space.



Attractively landscaped courtyard is a usable outdoor room for apartment dwellers.

Our second picture shows the court of an apartment house here in Ithaca, New York. This is so much more usable for the tenants than the same space on the street side of the building. The Flowering Dogwood (center) and Red-Bud (front left) are really an inspiring sight, both in the spring with their beautiful flowers and in their gorgeous fall colors. I expect that by now long, low benches have been added to this courtyard as a finishing touch.

A fence and softening plantings used to shut out a commercial

enterprise are shown in the last picture. This is large as outdoor rooms go, but I wanted to show you how a swimming pool could be an integral part of a grounds plan and yet be fenced for safety. Wouldn't the center of this sunny lawn be a magnificent setting for a pool? And, of course, running water is great in any type of outdoor room — and easy to have today with a re-circulating pump. I have always loved walled or fenced gardens and have thought how much I'd like a house built around an open room!



There's even room for a pool in this large enclosed area.

The **AA** Clothes Line

4706. Smart duo! PRINTED PATTERN Misses' Sizes 10-18. Size 16 jumper 2-3/4 yards 35-inch fabric; blouse 2-1/4 yards. 35 cents.

Printed Patterns

7221. Cable-rich jacket knitted in one piece from neck down. Directions for men's sizes 36-38; 40-42; 10-18 44-46 included. 25 cents.

4699. Zip-front casual! PRINTED PATTERN in Half Sizes 12-1/2-22-1/2. Size 16-1/2 takes 4-1/4 yards 35-inch fabric. 35 cents.

PATTERN CATALOG



4699
12½-22½

510



4566
34-48

4920
S-36-38
M-40-42
L-44-46
Ex. L-48-50

9372
10-18

9372. Pleated dress with button trimming! PRINTED PATTERN in Misses' Sizes 10-18. Size 16 takes 3-3/4 yards 39-inch. 35 cents.

510. Easy-knit girl's coat in one piece from neck down, including sleeves. Directions for sizes 4-6; 8-10 and 12 included. 25 cents.

4566. Slimming dress with raglan sleeves! PRINTED PATTERN Women's Sizes 34-48. Size 36 takes 2-7/8 yards 45-inch. 35 cents.

4920. A back-buttoned bib apron! PRINTED PATTERN in Women's Sizes 36-50. Medium (40-42) takes 2-3/8 yards 35-inch. 35 cents.

9079. Skirt, blouse and two jackets -- one in crochet. PRINTED PATTERN in Half Sizes 12-1/2-22-1/2. Yardages, crochet directions in pattern. 35 cents.

9079
12½-22½

DRESS PATTERNS are 35¢ each. NEEDLEWORK PATTERNS are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011. Write name, address, pattern size and numbers clearly.

Send 50¢ for our CATALOG OF PRINTED PATTERNS showing over 350 design ideas. MAIL COUPON in Catalog and get one FREE PATTERN.

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American
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Most amazing of all—results were so thorough that sufferers made aston-

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ONLY 5¢ A PLANT
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Each plant yields 6 pints a year!

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Plant Now For Crops This Coming Spring!
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Send my "PLUM-SIZE" strawberry plants, guaranteed as stated above. (Send check or money order). (Cat. No. 09901).

☐ 25 for \$2.25 Name _____

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☐ 250 for \$12.00 Address _____

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☐ 1000 for \$33.00 City _____ State _____

Add 10% for postage—packing; 45c minimum for orders less than \$4.50

The **AAA** Clothes Line



8251
12½-26½

8251. Slimming sheath in half sizes. Sizes 12½ to 26½. Size 14½, 35 bust, 2½ yds. of 45-inch.



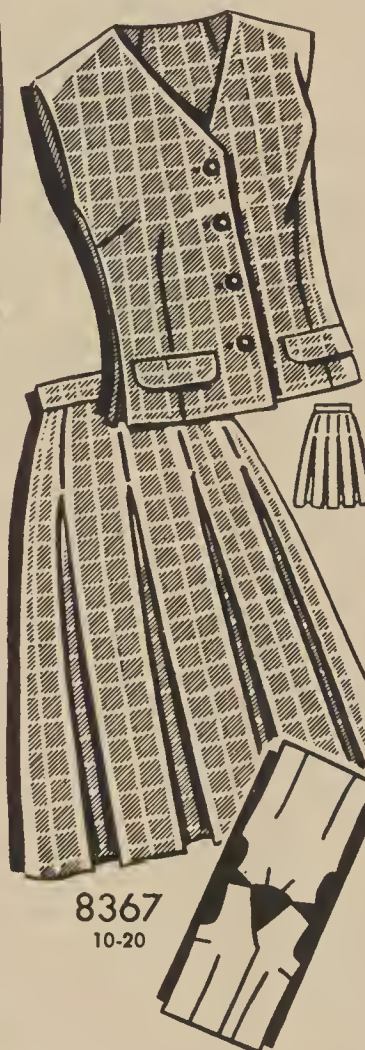
8194
3-8 yrs.

8194. Fit for a young princess — flower-trimmed dress with sleeve option. Sizes 3 to 8 years. Size 4, with sleeves, 1½ yards of 35-inch.



263

263. Pretty hostess aprons to give or keep—of bright gingham embroidered with flowers in simple cross-stitch. Full directions with graphs for rose and pansy borders.



8367
10-20



8252
36-52

8100. Classic news in a junior two-piecer. Sizes 9-18. Size 11, 31½ bust, 4¼ yds. of 42-in.



8100
9-18

200. Kitchen towels with colorful cock motifs to iron off in minutes—no embroidery! Just work the day-names. Color and hot iron transfers; full instructions.



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Send 50c more for the latest issue of our pattern magazine Basic FASHION. Every pattern features our exclusive Photo-Guide. Also, our Needlework ALBUM is filled with a wealth of handwork designs. Send 50c for your copy.



Recipe of the Month

August is the month to cook vegetables on the outdoor grill, and eggplant, zucchini squash, and tomatoes are particularly good. Brush before and during cooking with a tasty sauce, to keep them flavorful and moist. They cook quickly, so test frequently with a fork to prevent overcooking. How good they'll taste served with your favorite meat, also grill-cooked!

For the **Tobasco Butter Sauce**, melt 1 stick ($\frac{1}{2}$ cup) butter and stir in $\frac{1}{2}$ teaspoon Tobasco and 1 tablespoon minced parsley (or, if you like, $\frac{1}{2}$ teaspoon oregano).

Slice unpeeled eggplant crosswise, $\frac{1}{2}$ inch thick. Cut in half unpeeled zucchini lengthwise and tomatoes crosswise. Brush both sides of vegetables with sauce and place on grill (tomatoes and squash cut side down). Cook until tender, turning once and basting frequently. Eggplant may take about 20 minutes, squash 15 minutes, and tomatoes about 4 minutes cut side down and 8 minutes after turning.

For go-along potatoes, scrub potatoes and wrap each in aluminum foil. Place on glowing coals and bake about 1 hour or until done, turning frequently. To serve, open foil; cut cross in top of each potato and top with chived sour cream sparked with a dash of Tobasco.

DO YOU HAVE . . .

Directions for making aprons and pillow tops from men's neckties? Mrs. William Lang, Route 1, Lockport, N. Y., requests this information.

Any information as to where Mrs. Ruth Reynolds, R. D. 1, Corning, New York, can find wool carders? Mrs. Reynolds wants to make a comforter from wool she has cleaned.

A few pieces of the old-time house plant known as "Crowsfoot" that you could send to Mrs. H. A. Waltman, Route 1, North Wales, Pa.?

Mrs. Waltman describes the plant as follows: "It has no leaves, consists of only soft needles about apple-green in color, and grows down gracefully over sides of pot. Each stem with the needles is about as big around as a woman's first finger. When close to it, it has a very fragrant odor."

American Agriculturist, August, 1965

AROUND



the HOUSE

The color of your house determines how often it needs to be painted, says the U. S. Department of Agriculture. Good house paint, if it's white, lasts at least 4 or 5 years before it needs renewing; tinted paints, 5 or 6 years; dark-colored paints, 6 to 8 years.



Sometimes a very simple thing can do wonders to brighten a room and make it more convenient. Ironing is easier when there are places handy to put finished laundry and to hang pressed dresses, shirts and other items.

Shown here is a wall of inexpensive Masonite Peg-Board. Installation is simple, and wood shelves can be added wherever you want them. Just fit on brackets placed in the perforations.



New "vertical" design from Westinghouse for clock and table radios. Just 4 inches deep, radios will fit on narrow shelves or night stands.

PLANNING BATHROOMS

If you're planning a new bathroom or to remodel an old one, you'll be interested in a new publication by U. S. Department of Agriculture housing specialists. "Planning Bathrooms for Today's Homes" (HG-99) brings you up to date on new finishes, fixtures, and materials—plus arrangements that provide maximum convenience.

For a single free copy of this bulletin, send a postcard with your name and address to the Office of Information, U. S. Dept. of Agriculture, Washington, D. C. 20250.

HEMLOCKS

by Inez George Gridley

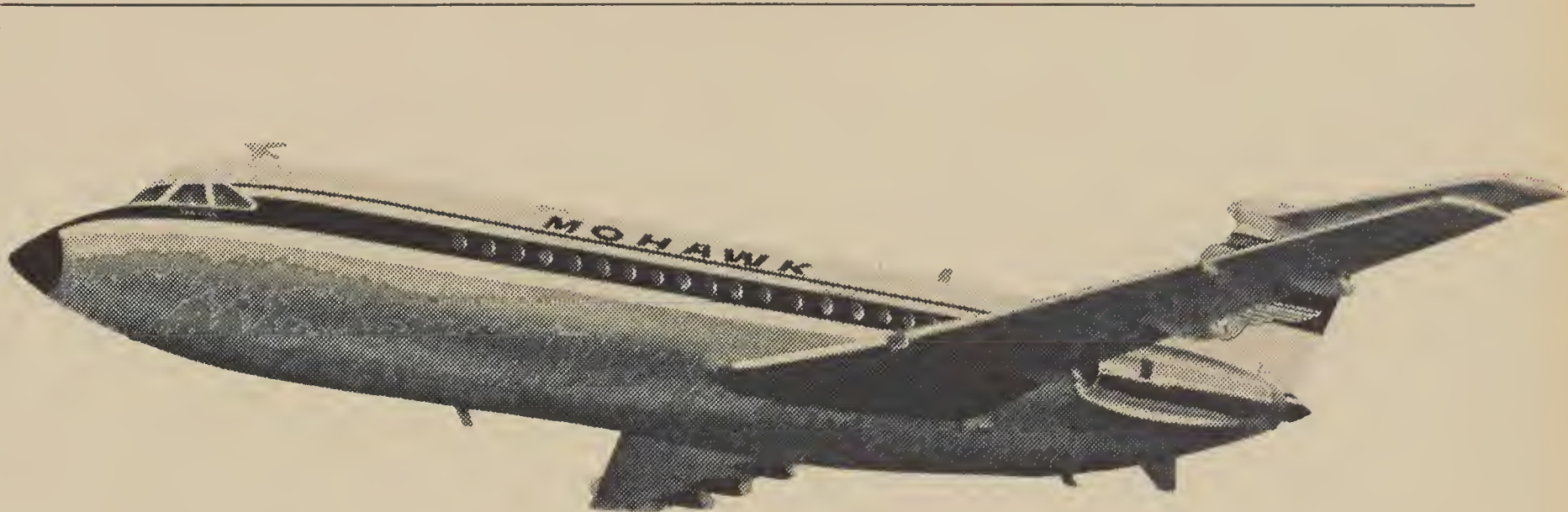
The poetry of hemlocks is deep and green,
Secret as hiding places seldom seen.
The music of hemlocks, like sound of the thrush,
Is sudden and cool in the evening hush.
Cathedrals of hemlocks invite the weary;
The quiet aisles are sanctuary.



Includes easy-to-sew styles in every size range from tots to women. Every pattern contains our exclusive Patt-O-Rama, a visual sewing guide.

Special features include more of our Young Originals, a how-to section, and a gift coupon that entitles you to a pattern free with the purchase of three or more.

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ED EASTMAN'S PAGE



AUGUST MEMORIES

Do you remember the few days between haying and oat harvesting? You had welcomed the first clatter of the old five-foot-cut mowing machine right after the Fourth of July. But before the last load of hay was in the barn you hoped you would never see another mowing machine or another pitchfork. How you welcomed those few days of comparative rest!

But the August rest was not for long. There were miles of roads that went through or around the farm, and every pesky weed and brush that bordered those roads had to be cut by a scythe or brush hook. That was always a boy's August job.

But it was good sometimes to rest for a few moments, take a long drink of water from the jug kept cool in the shade, and with your old straw hat pulled over your face, look at the blue sky through the holes in the hat, and dream "the long, long thoughts" of youth.

All too soon came oat harvest, and the back-breaking job of binding the bundles after the drop reaper and setting them into shocks. I wonder how many old-timers now can bind a bundle of grain with a straw binder? I tried my luck last summer... and found that I had not forgotten how. One does not easily forget those old skills!

The late Dr. Carl Ladd, dean of the New York State College of Agriculture, used to tell about loading rye straw as the hired man pitched it up to him when he was a boy about 14 years old. Rye straw is just about the slipperiest stuff ever grown, and just as young Carl had nearly finished the load on a steep side hill it all slid off the wagon, carrying Carl with it. The hired man let loose with language that only hired men of those days could use... but when he paused for breath Carl told him where he could go and take the rye with him.

Again, after grain harvest there was a little time when the pressure was off before corn-cutting began... all by hand.

Strange, is it not, that so many changes could come in one man's lifetime?

Memory has a nice trick of mostly forgetting the unpleasant problems and troubles of the past.

I like to remember those wonderful hot Sunday afternoons in August when the men and boys of the neighborhood gathered at the old swimming hole... to swim, dry off in the sunshine, and swim again. Anyone with a bathing suit would have been called a sissy. "Last one in is a rotten egg!" Remember? Oh, hum, of all those who gathered at the old swimming hole I know of only one other still living.

It was pleasant, also, to sit with the family in the dusk of a hot August evening waiting for the bedrooms upstairs to cool off, perhaps talking a little, listening to the argument between Pa and Ma Bullfrog down the "crick," the chirp of the crickets, and watch the lightning bugs flash across the yard. But it is saddening, also, to know that not one of that beloved group now "casts a shadow in the sun."

August was and still is the "Going Away Time." Vacations over, the young folks set out for college or a job, leaving a lonesome place in the hearts of those left behind. Father and Mother know full well that their sons and daughters will never be home again for any length of time.

But such is life, which must go on. Thank God for work which dulls the pain of loneliness. There are silos to be filled, fall plowing to be done, and the farm put to bed for the long sleep of winter.

GOOD INSURANCE

The other day I asked a farmer friend if he believed in lightning rods. He said that he did, but that he couldn't afford them. One might debate that. Rods are a kind of insurance, and they give one a feeling of security in an electric storm.

The time of electrical storms is here, so it's a good time to think about putting up lightning rods if you don't have them; and if you do have them, see right now that there is a perfect connection with the wire running from the rods on the roof to the metal posts in the ground.

Until we moved to Ithaca a few years ago, I always had a feeling of fear or dread when a thunder storm came roaring up out of the Northwest. After every storm I

would read of some farmer who had lost his buildings because of lightning. I feared that my turn would be next.

But I needn't have worried. My barns were well protected by lightning rods.

"THE WOLVES

WILL EAT YOU"

A business man said to me the other day with great emphasis, after the New York State sales tax had been passed, "I am going to move my business to some other state. This is the highest-taxed state in the Union. The politicians are rapidly making it impossible to do business here. I think it will take a national disaster or a depression to awaken the politicians to what they are doing to the economy."

Another man told me that for a lifetime he and his wife had gone without necessities and saved every cent they possibly could in order to take care of themselves in their old age. "Now," he said, "because of taxes and the inflation which they are causing, our hard-earned savings are rapidly disappearing. We have nothing to look forward to except death or to go on 'relief'."

Trouble is people are shrugging their shoulders and saying, "What can I do?" My answer is to take a little time to write to your representatives, both state and federal, and let them know with emphasis how you feel. It is my experience that when the politicians get enough such letters, they listen. But if you make yourselves sheep the wolves will eat you.



THE PAYOFF

With August or a little before comes the big payoff of vegetables fresh from the garden. There is nothing in the market that can equal sweet corn popped into the kettle within minutes after it is picked. The same applies to many other vegetables which lose much of their goodness after wilting around in the market for days.

FORECAST

After much reading and study of what economists think about the future of farming, I can sum up the thinking of a majority of them in a few sentences:

The outlook for the next five years will be discouraging. After that the going for farmers who survive will be much better because:

First, there will be fewer farmers and less competition, and second, population is increasing at an in-

credible speed, making millions more mouths to feed.

Therefore, if you can hang on during the immediate future you can look forward with much hope. If you are a young man just starting in farming, and if you can capitalize your business for the next few years, your future chances for success and happiness on the farm are good.

NOT FORGOTTEN

B. C. Todd of Arkville, N. Y. (Delaware County) writes:

"When I was a boy we had these old apple varieties: Wayne County King (this was also called Tompkins County King), Fall Pippin, Snow Apple, Gravenstein (also called Twenty-Ounce), Horsebeef, Red Jillflower, Red Astrachan, Sheep Nose, Northern Spy, Seek-no-Farther, Pound Sweet, Tallman Sweet, and some other sweet apples which were never named.

"I doubt if there are any of these varieties of apple trees alive within a 50-mile radius in this part of Delaware County today."

Except for two or three, most of these varieties are not grown commercially anywhere today. Some of them were delicious to eat but they did not yield or market well. It would be fun to go down cellar and bring up a panful of them, wouldn't it?

YOU NEVER

MISS THE WATER

During the past two years thousands of farmers have had good reason to sing the old ballad entitled "You Never Miss the Water 'til the Well Runs Dry." Of course, no one knows whether or not we are in for continuing dry weather in the next few months or years. But we do know that the water table is very low, and that all of us are using many times more water than ever before.

We have had plenty of warning to make wise farmers take a careful look at their water supply. Now is the time to think and act before another winter of low precipitation.

EASTMAN'S CHESTNUT

Jessie had gone away to college, and after she had been there a short time one of her letters home came signed not Jessie, as she had always been known, but Jessica. Her brother, Tommy, somewhat younger, wrote to her in answer to her letter as follows:

"Dear Jessica:

"Momic and Poppica have gone over to visit Aunt Mollica and Uncle Henrica. They are going to buy a carica. I don't know whether it will be a Fordica or a Chevica.

"Our old cowica has had a calfica. I was going to call it Nellica, but I had to change to Jimica because it was a bullica.

Tomica."

American Agriculturist, August, 1965



SERVICE BUREAU

HOODWINKED

"Yesterday two men with a small truck stopped and said they would seal my blacktop driveway. After some persuasion I let them.

"Our driveway is only 35 feet long and 10 feet wide. It had never been sealed and it did look rather bad. I asked the approximate cost and he told me it would probably take only two to four gallons at \$8.00 per gallon. I thought that wouldn't be too bad. When he finished, he said it took 11 1/2 gallons because it had never been sealed before.

"Instead of costing about \$32.00 it cost \$92.00. I would never have had it done if I had known it would cost so much. I paid by check, and it was not until after they left that I noticed there was no address on the bill he gave me. He had told me the cost of the paint was actually \$16.00 per gallon but, because he had some left in his machine, he would sell it for \$8.00. He said if he left it in the machine it would harden up. I should have been wise then. I never thought I would be hoodwinked like that!"

We appreciate Mrs. J.'s writing us about her experience so we can print it as a warning to others. Don't be rushed into these home improvement and repair jobs. Take time to check.

CAN YOU HELP?

Mrs. Allen F. Bourne, R. 2, Ulster, Pa., has some Youth's Companions 1914-1927 that anyone can have who will pay postage.

If you have a copy of the novel, "The Eagle's Mate," that you would sell or trade for another book, please write Mrs. Gerald Putnam, Rt. 3, Potsdam, N.Y.

Mrs. Harold Wolcott, Dryden, N.Y., would like the words to the humorous song, "Those Marriage Ties (or Vows)."

Mrs. Odetta Hardy, R.F.D. 1, Henniker, N.H., would like the knitting directions for spiral socks, the lumberman's or hunter's type, often made of gray yarn with red stripe at top.

Mr. G. E. Hauser, 226 Elmwood Ave., Lockport, N.Y., would like to borrow or buy an owner's instruction and operation manual for Sears Roebuck two-man chain saw, model #38760.

Mr. Paul Hollis, Box 184, New Berlin, N.Y., who collects Tuber-

American Agriculturist, August, 1965

culosis stamps, would like the following: 1907, 1908, 1909, 1910, 1911, 1912, 1914, 1915, 1916, 1920, and 1921. He has some he would exchange.

NOT CLEAR

"We purchased some property here with a sales agreement from the real estate dealer — so much down and so much per month. After residing there for six months, we found out they had a mortgage on it which had not been mentioned. However, we offered to take over the mortgage payment and pay the rest of our monthly payment on a second mortgage. They wanted us to pay more per month than we agreed in the contract.

"We sued, and the judge ruled to give us our money back with rent deducted from that amount.

"Is there any way to stop this kind of dealer from taking money and not giving a clear deed?"

Almost everyone, at some time in his life, is involved in the buying or selling of real estate. There are many problems involved in the transfer of property and a mistake at this time can prove costly as well as disappointing.

To avoid any pitfalls, it is wise to have an attorney handle your interests throughout the transaction. We assume that our subscriber did not have a lawyer handle his dealings with the real estate agency, or the title would have been examined. He was fortunate to get his money back.

BULLDOZED

"A company in Pennsylvania sent us a pamphlet, offering aluminum siding at very reasonable prices. Of course I fell for it, and yesterday an agent appeared. I signed a contract for \$900.00; then he began to tell about a better grade of siding that he would put on, but at an exorbitant price of \$69.00 a month for five years.

"When I demurred, he tried all kinds of cajolery and near threats and, finally, became very indignant. He grabbed the contract (or note) which I had already signed and tore it up. This suited me fine, for by that time I didn't want anything to do with him. He left in a rage and I didn't like his manner. The first contract is obviously just a come-on for the larger one.

"Apparently I am in the clear, but perhaps you can prevent others from being swindled."

This is standard procedure with some outfits, to offer a very economical price and then try to bulldoze you into a much higher contract. You were fortunate that he tore up the papers. One was a promissory note, a blank one, which stated: "Do not sign this note until the work is fully completed."

Truck Rolls Over Farmer While Hauling Water For His Cows

Earl Dietrich, 60, of the Jones Hollow Rd., Margaretville, N.Y. was killed instantly late Saturday night while trying to get water for his cows.

He was at a nearby spring filling water containers loaded on his truck. The truck was parked on an incline when it went out of control. As it rolled down the slope the runaway truck threw Mr. Dietrich off the back and crushed him. Mrs. Dietrich who was also on the truck leaped to safety.



Mrs. Dietrich received \$1050 check from North American. Her husband had the policy less than two years. She sent this note of thanks:

"Many thanks and appreciations for the prompt settlement of my husband's claim. We never expected to have to use this coverage and took it out only as a precaution. The benefits came to us in time of need and we were happy to have the help. I would recommend the North American to anyone who wants wide coverage for such low cost."

Mildred Dietrich

OTHER BENEFITS PAID

Winifred Wolfer, Fillmore, N.Y.	\$ 325.50	Stanley Lawrence, Taberg, N.Y.	\$ 350.00
Auto Acc.—whiplash, strain neck & rt. shoulder		Knocked off tractor—fractured ribs	
Keith Krotz, Franklinville, N.Y.	428.70	Ferne J. Parcels, Tully, N.Y.	1345.00
Hit by hay baler crank—broke arm		Slipped on wet floor—fractured hip	
Theodore Loomis, Moravia, N.Y.	225.00	Ernestine M. Smith, Middletown, N.Y.	197.62
Kicked by cow—injured eye		Crushed by cow—injured legs & feet	
Clyde W. Tenpas, Clymer, N.Y.	844.15	Robert Kirby, Albion, N.Y.	1365.00
Hit on head by chain—skull fracture		Caught in corn picker—inj. hand & fingers	
Henry P. Drezler, Smyrna, N.Y.	695.71	Lyle Cornell, Oswego, N.Y.	642.31
Thrown from moving tractor—separation of pelvis, shock		Hit by car—broke leg, cut scalp	
Morgan Brown, Sr., Blodgett Mills, N.Y.	447.86	Walter H. Wood, Maryland, N.Y.	1121.43
Threading baler—broke arm, cut hand		Fell from ladder—broke ribs, pelvis, shoulder	
Adrian LaTray, Bombay, N.Y.	315.30	Gordon O. Smith, Hornell, N.Y.	373.70
Fell—injured knee		Hit by hay baler—injured hand	
Julia Harloff, Batavia, N.Y.	1712.02	Walter H. Brown, Barton, N.Y.	822.28
Auto Acc.—inj. leg, hip & head		Crushed by heifer—broke leg, injured knee	
David Clements, Jr., Frankfort, N.Y.	633.50	Helen Graham, Argyle, N.Y.	367.75
Fell while chasing cows—injured knee		Tripped over fence—broke ankle	
Harold J. Lee, Glenfield, N.Y.	364.29	Patsy Vitticore, Sr., Clyde, N.Y.	527.07
Pushed by cow against post—inj. elbow		Hit by truck—injured back	
Melville Keenan, Caledonia, N.Y.	497.15	Leon Ballard, Troy, Pa.	860.30
Auto Acc.—injured teeth, cut & bruises		Kicked by cow—injured back	
Douglas Elliott, Waterville, N.Y.	145.72	Robert D. Gibson, Ulysses, Pa.	444.10
Injured hand in combine		Ran arm thru glass—severe cut arm	
William D. Staley, Jr., Amsterdam, N.Y.	241.42	Clifford Reinhardt, Cranbury, N.J.	468.00
Cow stepped on ankle		Truck accident—whiplash injury	
		George Catchpaw, Middlebury, Vt.	140.00
		Draining gas from tractor, caught fire—burned thigh & leg	

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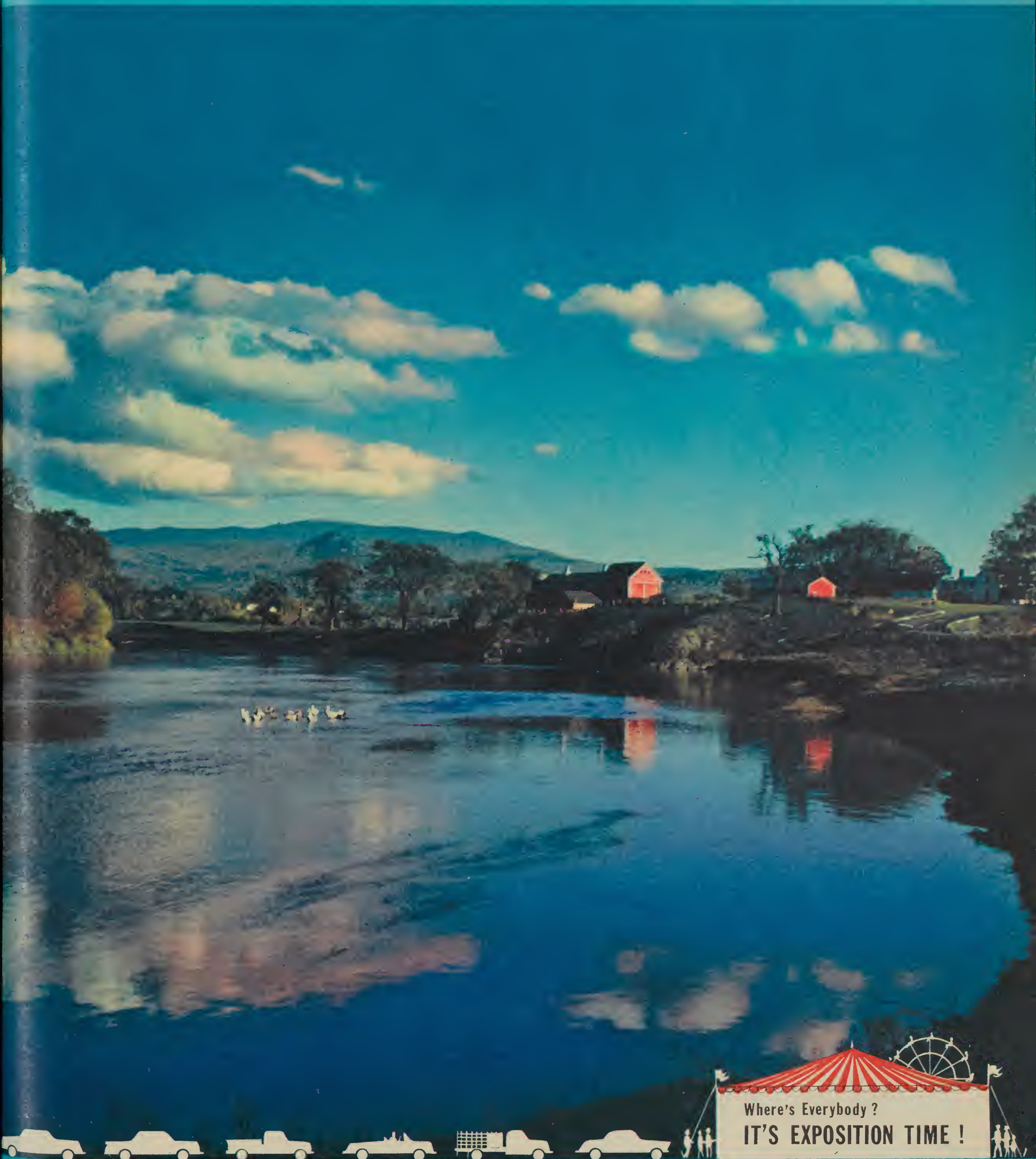
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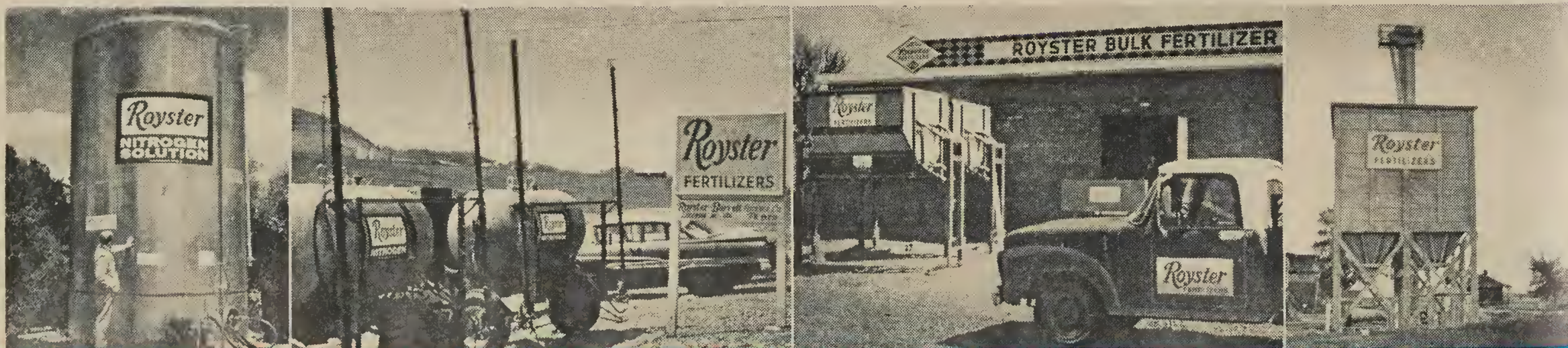
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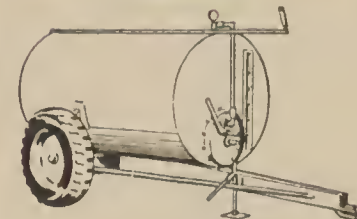
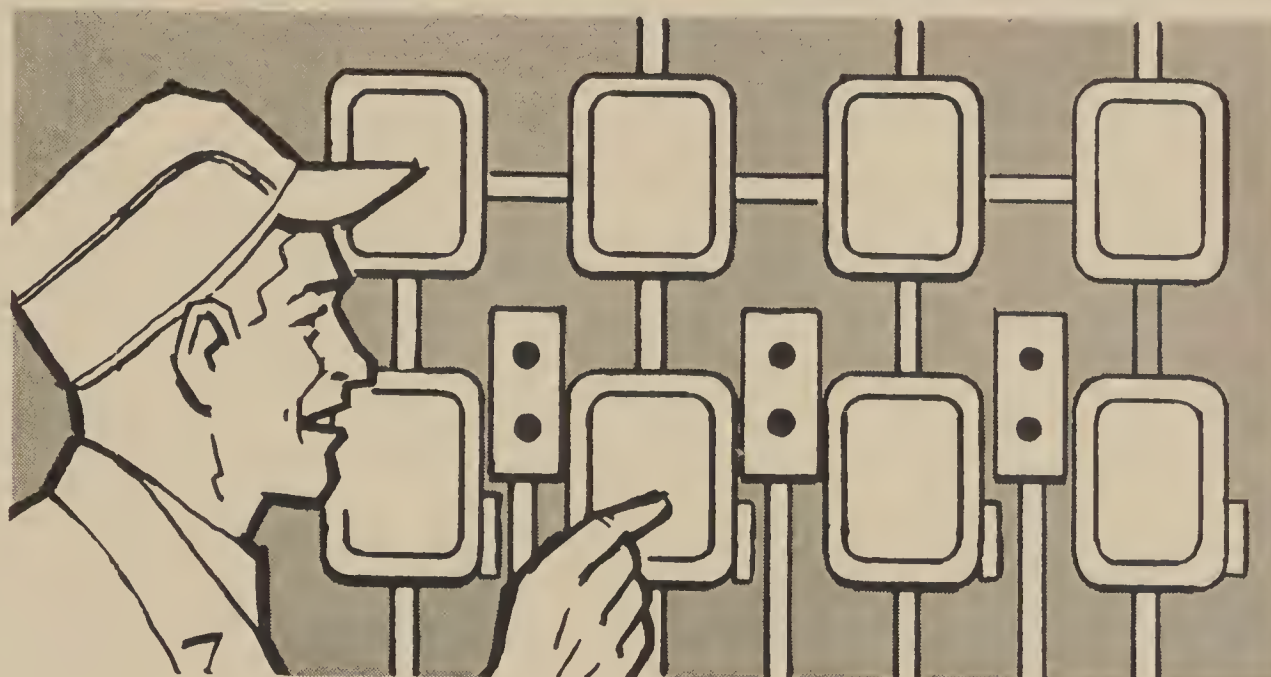
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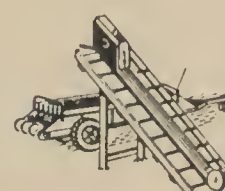
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EDITORIALS

by GORDON CONKLIN

YES, WE HAVE NO BRACEROS

Once upon a time, in a far-off country called Yankeeland, there arose a great tumult. A large labor organization, called Afelsio, demanded that farmers stop hiring help from the country of Hottamale to the south.

For many years, the Hottamales had poured by the thousands each harvest season into Yankeeland to harvest crops. But now the clamor moved Mr. Quirtz, Secretary of Therapeutic Activity, to action. "We need jobs for true red-blooded citizens of our own country, and we're not going to let this travesty of justice go on," he thundered, watching nervously the Trend Coefficient of the latest political poll.

Mr. Quirtz, however, was very much concerned about the crops left to rot unharvested under the blazing sun. Quoth he, "We shall recruit the underprivileged and unemployed to do the job!"

First he gathered together a group of college students enjoying a sneak-in to protest the violation of their constitutional rights to spit on the sidewalk. Then he rounded up some high school athletes under a special program entitled "Children's Crusade of the 20th Century." Finally, he delivered an enthusiastic report to the unemployed about the work now available.

Alas! A few young people rose to the challenge and watered the good earth with their sweat... but most cried bitter tears and departed for less arduous things. The unemployed continued their eligibility for regular checks by remaining unemployed. Some people brought in from far distances (at farmers' expense, of course) settled down to enjoy the welfare payments that proved to be higher than where they had come from.

Meanwhile, business in the area slumped because crops were unharvested. "Our Offensive On Insufficiency will handle this easily," said Mr. Quirtz.

Down in Hottamale, the workers who once brought home so many Yankee shekels raised a great protest about the drying up of this income. "Fear not," said Mr. Quirtz, "our Togetherness For Uplift program will take care of our friends south of the border."

To the outraged farmers the Secretary said soothingly, "We will set up a task force to study the situation and develop a program! Meanwhile, take appropriate steps to cooperate with our Air Pollution Program by eliminating the odors of overripe fruits and vegetables."

The moral of the story is that a skillful promoter can create problems for which he can then develop programs that in turn create problems for which programs are needed that create problems. . . .

PASS THE BUTTER

So now the American Heart Association has become even more emphatic about its controversial stand on polyunsaturated fats. It now recommends substituting plant for animal fats whenever possible, and to start doing so early in life.

Now there is darned little unanimity of opinion even among the men of nutrition science and the medical profession that this is good advice. Furthermore, I sometimes think the experts become so wrapped up in their test

tubes that they can't imagine that people may want to live fully instead of just living a long time.

I always remember an elderly doctor saying years ago, "Son, if you leave alcohol alone, stay away from the pretty gals, never smoke, get plenty of sleep, and diet carefully you'll probably not live any longer . . . but it will sure seem that way!"

Seriously, should we spend a lifetime fussily being careful about everything we eat . . . so we can die slowly from cancer instead of swiftly with a heart attack?

How come we get so deadly serious about specific health problems and lose all perspective about the purpose of life, and its potential for inner abundance? Are we really so oblivious to the fact that people save their lives in terms of inner joy only as they lose their lives in purposes beyond themselves? After all, we'd be safer if we voluntarily locked ourselves in a cell down at the jail . . . and stayed there.

Please pass the butter!

WHERE YOU AT?

Periodically an irate subscriber writes and says he received no reply to a letter sent some time before. Come to find out, such cases usually are caused by the absence of a return address.

I received a letter from Mrs. Florence Bennett Hendrickson (Mrs. Jasper Hendrickson) the other day that I very much wanted to answer . . . but same problem. Can anyone help me out?

We want to get letters from you, but please put your address on the letter as well as on the envelope.

STUDY IN CONTRAST

Across the years it has always troubled me that the Rural Electrification Administration has seen fit to wage a bitter verbal and legislative war against private electric power utility companies. The consistent message of the REA seems to be that the private power companies are constantly seeking new ways to benefit stockholders by gouging the customer; I would guess that nearly half of the editorial content of REA publications hammers away at this theme.

In marked contrast has been the approach of the Cooperative Farm Credit System to private institutional sources of agricultural credit, including primarily commercial banks and insurance companies. In fact, an organization known as National Agricultural Credit meets three times a year in Chicago to discuss mutual problems; it is attended by members of the Farm Credit Administration, Farm Credit Banks, life insurance companies, commercial banks, and the American Bankers Association. The Farm Credit Administration, by the way, is a government agency that supervises the Farm Credit Banks; its expenses are assessed back to the Farm Credit Banks and are therefore not a burden on the taxpayer.

One of the major differences responsible for this contrast between REA and the Farm Credit Banks is the fact that REA is authorized by Congress to borrow money at two percent interest, whereas the Farm Credit Banks must borrow their money on the open

market, where the interest rate is the same as it would be to any competitive source of credit. Borrowed money plays a bigger part in the capital structure of a utility company than for most other industries; consequently the money-borrowing advantage enjoyed by REA creates a very substantial competitive advantage over the private power companies that must currently pay between 4½ percent and 5 percent interest. It's upon this major bone of contention that there rests the bitter antagonism between REA and the private power companies.

It seems to me that the Cooperative Farm Credit System deserves a bouquet for the fact that it started out with federal money and has grown to stand on its own feet, amidst the same competitive forces that influence private sources of credit. It has met a need of farmers, but has done so in a spirit of respect for competitors; farmers have benefited from the rancorless interchange of ideas between personnel representing all sources of agricultural credit.

Perhaps there is a principle here that should be built into future programs of a similar type . . . that of laying the foundation of a program so that a need is met, but at the same time providing a framework for becoming self-sustaining and fully competitive as the service of the newly-formed organization proves itself.

MOVE CLOSER

Farmers are presently receiving, on the average, 37 cents of the dollar spent by consumers for food. The other 63 cents goes to those who handle the food from the farm to the table.

The National Commission on Food Marketing recently released figures showing that, between 1950 and 1964, food expenditures per person in the U. S. rose by \$105. But marketing firms received \$104 . . . and farmers got only one dollar!

It seems to me that there are some practical ways for farmers to get a bigger slice of that dollar. I said practical . . . not emotionally attractive, like National Farmer's Union president Jim Patton's constant frothing at the mouth against the "middlemen."

The individual farmer can sell retail to the consumer through roadside stands, egg routes, pick 'em yourself setups, etc. Many a producer has done well at this, but invariably the long-run success stories have included only persons who could meet the public well.

Farmers can also move closer to the consumer through marketing cooperatives . . . or he can invest in the stock of corporations successfully performing the marketing function. As co-op member or corporate stockholder, he stands to get a piece of the potential profits.

Another way is to form really effective bargaining groups such as those being developed for fruit and vegetable growers by Farm Bureau. If powerful enough, processors could be forced to pass along higher costs to consumers, and pay farmers more for the raw product.

The biggest slice of the total food industry melon goes to the marketing part of the process rather than to production. This is partly because of concentration of power in the hands of a relatively few distributors, partly because of the power of organized labor, and in part due to growing demands from consumers for more marketing services (that all cost money).

Maybe some day the population explosion will cause food shortages that will skyrocket food prices at the farm. But for the foreseeable future, farmers must look to less spectacular ways for latching onto more of the grocery dollar.



Sparkling New 1250 from Oliver— Cost-saver with Certified hp.

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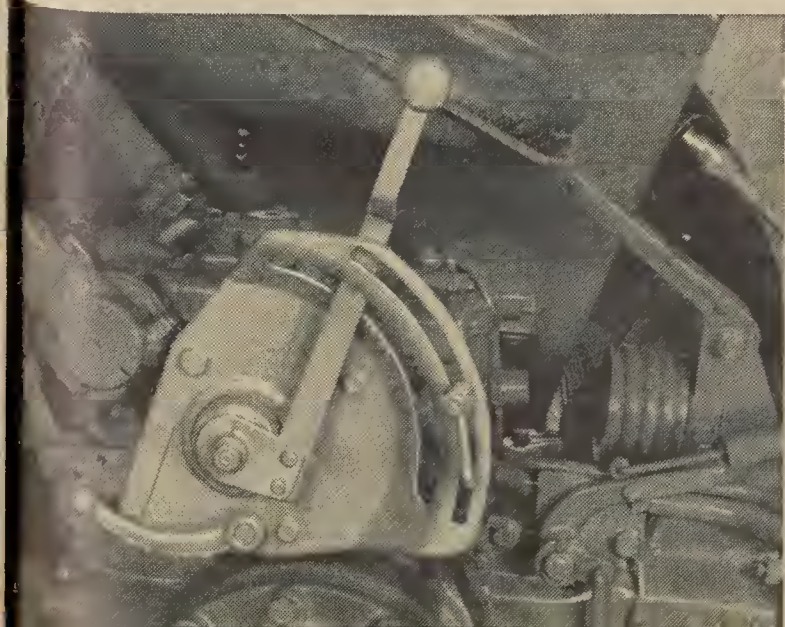
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New York State as**

the man in the Checkerboard tie



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That's why Purina is proud of Frank Thomas, our man in the Checkerboard tie in the southern tier of counties of New York State. For seven years, with Purina, Frank has made it his business to know what it takes to make money with livestock and poultry.

He knows that in our business the customer is "The Boss." We must serve and satisfy him.

Frank headquarters at Binghamton, New York, and works with Purina people and farmers in Delaware, Broome, Chenango, and Susquehanna (Pa.) Counties. Since coming to Purina he has never stopped learning how to give farmers the kind of advice, service and leadership it takes to make money with livestock and poultry. To this, Frank is dedicated.

Yes, Purina is proud of Frank Thomas and the part he plays in the growth of the agriculture economy in his area. Like all the men in the Checkerboard tie, he wants to see his customers make money. These men all have one thing in common... they serve. And so does Frank Thomas and the man in the Checkerboard tie in your part of the state.



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**PURINA
CHOWS**



A door that is eight feet wide allows room for truck or tractor to enter. Note big ventilating fan at left.

The Move Is To

PLASTIC GREENHOUSES

by Owen Wavrinek

ONCE A BUILDING of the future, the plastic greenhouse is beginning to catch on. And from looking at comparative costs, it's easy to understand why.

A 21 x 100-foot plastic greenhouse with a construction cost of about \$1,000 has been developed by researchers in vegetable crops at Cornell University . . . materials for a glass house cost eight times this amount. By no means the first or only one of its kind, the Cornell "Twenty-One" plastic greenhouse is inexpensive, efficient and practical . . . and the entire structure can be put up in a relatively short time, without having to use skilled labor.

Two layers of plastic are separated by a two-inch air space, which provides a heat-saving of 40 percent or more as compared to a single layer of plastic. Therefore, a smaller heater can be purchased, reducing initial costs.

A double-layered house avoids other difficulties as well. One-layer structures collect moisture on the inner surface of the plastic that is apt to drip onto the plants and encourage the fungi causing damping off disease. Such moisture has the further disadvantage of ab-

sorbing light. The single-layer houses are hotter on bright days, and plants in them need more frequent watering.

The inner layer of the "Twenty-One" greenhouse is a sheet of four-mil, ultra-violet-resistant polyethylene that should last for three years. It is applied directly to the rafters and attached to the sides and ends of the house.

Spacers

But before the second or outer layer can be applied, 2 x 2-inch spacing lumber must be placed along each roof rafter. The two-inch air space between the two layers is thus provided for. A 40 x 100-foot piece of four to six mil, non-resistant polyethylene is then rolled out and secured to the side and roof rafters. This will have to be replaced once a year, but it can be done by three men in two hours.

A fairly level site is needed for this plastic house. Fifty-two 4 x 4-inch posts, set in concrete, provide the necessary support. The frame or truss sections of the house are cut from two-by-fours. Side wall heights may be varied from two to six feet, depending on the grower's preference.

Phillip Allen, who operates the Ithaca Greenhouses at Ithaca, New York, is using six-foot side walls for his three "Twenty-One" houses. One of the first growers to use this new plastic structure, Phil has special praise for its labor-saving attributes.

His winter bulb crop, and spring and fall mums, do well in the plastic houses where air temperature can easily be regulated. But Phil admits that maintaining ground-level temperature does present a problem in the colder months.

Most of the houses that have been built are about nine feet from the peak of the roof to the ground. This vertical clearance, together with the wide (eight-foot) doors at each end, affords enough space to allow a truck or tractor to enter the house.

Ventilation in cold weather can be a problem in a plastic greenhouse. Solution . . . that polyethylene tube along peak, with holes that direct air toward roof.



WATER IN THE

GARDEN STATE

EXPLODING URBANIZATION in New Jersey, plus huge demands for water from a growing industrial complex, have combined with the widespread use of agricultural irrigation to cause some very serious water problems. As a matter of necessity, some legal steps have been taken in connection with water resources that might appear a bit stringent to some other areas of the Northeast that are at the moment blessed with either more water or fewer people. However, steps taken in New Jersey may well point toward a pattern that may be endorsed more widely in other areas of the Northeast as the water pinch spreads across the region.

Part of State

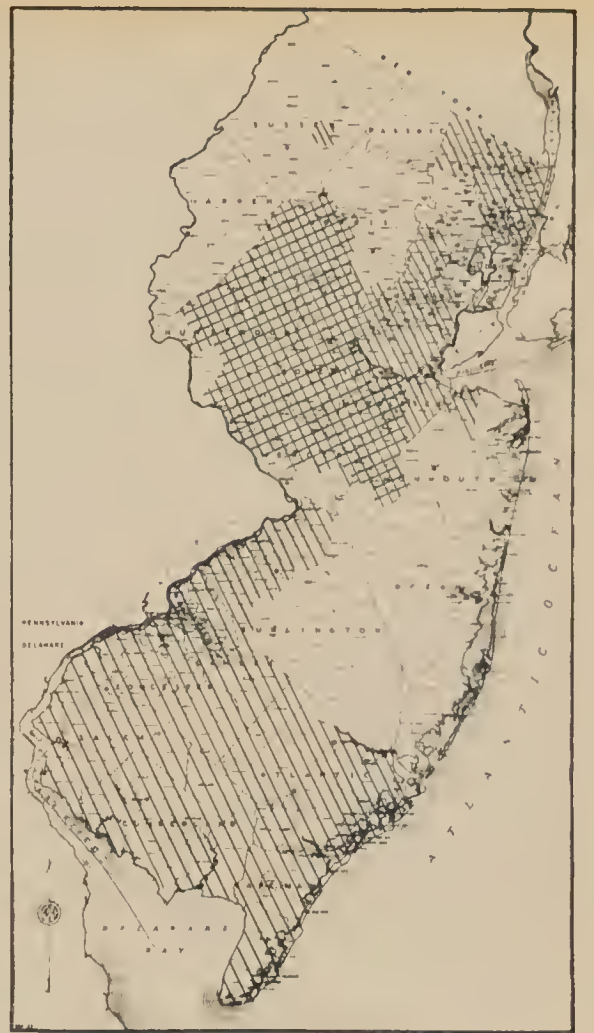
Under the present water laws of the Garden State, not all water users of the State are affected (see map for areas where the regulations apply).

Before any new water users in designated areas (individual, municipal, corporate, or association) are given permission by the State Division of Water Policy and Supply to divert surface or subsurface water, all present users must be notified by the Council and given a chance to express their objections at a public hearing.

Treated Separately

The water law of New Jersey treats subsurface water and surface water separately. Here are some of the features of the subsurface water law:

1. Once an area is delineated as a ground water-protected area, no new water user can obtain water from underground sources in excess of 100,000 gallons a day without first obtaining a permit for such withdrawal from the Division of Water Policy and Supply.



2. Anyone obtaining water at the time an area is delineated shall have the privilege of continuing to take from the same well the quantity of water which is the rated capacity of his pump without securing a permit. However, these users must file an affidavit with the Division stating the amount of water they are using or the capacity of their equipment, accompanied by a drawing showing the location of the well, or wells.

The surface water law includes these features:

1. It empowers the State Division of Water Policy and Supply to delineate, after a public hearing, watershed areas of the State in which a diversion of surface water for consumptive uses endangers the interests and rights of residents of the watershed. In areas so delineated, after the expiration of one year after the date of delineation, no one can divert surface water in excess of 70 gallons a minute (about 100,000 gallons per day) for any private use (other than

(Continued on page 22)

Keith Alcott of Waterville, New York, would like to see the "Twenty-One" house even wider . . . he finds it a little too narrow for tomatoes, his major hothouse crop. Keith built one of these plastic houses two years ago on a trial basis; he put up eight more in 1964. Temperature problems have been all but eliminated with a central steam heating system.

Year Round

Because they are temperature-controlled by means of automatic heating and ventilation, plastic houses can be used throughout the year or just during peak production periods in the spring. Tomatoes and flowers can be grown in fall and winter months; vegetable and flower plants can be started in the spring.

The "Twenty-One" greenhouse can be heated with one automatic gas or oil furnace, or with two smaller furnaces. Although one is usually sufficient for bedding plant production, two heaters will do a

better job of distributing the warmed air. A thermostat is used to control the burner, while the fan in the heater is left running constantly. This also improves heat distribution.

A forced hot air system, with gas or oil as a source of heat, is usually used. However, Keith Alcott's success with oil-fired steam heat might be kept in mind.

Proper ventilation is the key to satisfactory results with plastic greenhouses, according to Cornell Professor Raymond Sheldrake. A 42-inch exhaust fan, controlled by thermostats, is recommended for doing a good job, although the height of the side walls may necessitate a different size. The higher the side wall, the larger the fan needed to remove moist air and break up layers of heat.

Detailed plans for the Cornell "Twenty-One" plastic greenhouse can be obtained for \$2 from the Department of Vegetable Crops, Cornell University, Ithaca, New York.

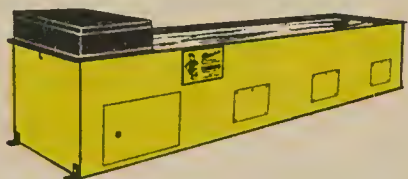
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THE TRACTOR FORK LIFT

by Wes Thomas

YOUR TRACTOR and some homemade pallets can be combined to do an efficient and low-cost job of moving materials on your farm. The "lift and carry by hand" or "load it on a wagon" type of job are the usual candidates for this type of mechanization. Heavy objects are easily loaded on pallets because their low height allows you to "walk" them aboard, rather than lifting them. The primary requirement is that the tractor be equipped either with a hydraulic lift and hitch for attaching integral implements, or with a front-mounted manure loader.

For the rear-mounted fork, load-carrying capacity depends upon the tractor's hydraulic system and its front-end weight. The usual load limit is 800 to 1,000 pounds for most 2 to 3-plow tractors.

Plan to add front-end weights to the tractor if you are going to carry the greatest possible fork-lift loads; this is an important safety consideration. You cannot adequately steer your tractor unless the front wheels are firmly on the ground.

For the loader-mounted fork lift, capacity depends upon the loader hydraulic system or, in some cases, on the capacity of the front tractor tires.

If you have a lot of pallet work, it's possible to rig fork lifts on both the front and rear of the tractor. This arrangement doubles the capacity of the tractor and solves the weight distribution problem.

The Pallet

In its most simple form, a pallet is only a platform, often about 5 feet square. It usually has three 2 x 4's or 2 x 6's arranged to serve as runners. The platform consists of one-inch boards nailed across the runners. Three one-inch boards are also nailed across the lower edge of the runners; these strengthen the pallet and help prevent its tipping off the fork lift.

Most any type of available lumber can be used to make the pallets. However, it's helpful to keep them as light as possible, to increase your "payload." A light-

weight pallet is also easier to position for loading. Often, it's convenient to line up several pallets and then load all of them before getting aboard the tractor to move them.

The solid-top pallet is preferable for general-purpose use. However, the top need have only three or four slats across it for hauling such items as baled hay or straw. In fact, slat pallets can be alike, top and bottom, so that they are always "right-side up."

Stake Pockets

Place stake pockets near the ends of the outer runners, add some short stakes, and you can haul long items such as posts or lumber. Install low side boards on each side and the front, and you can haul small items which would otherwise bounce off the pallet. Leave the rear open for easy loading.

Other handy versions will suggest themselves after you start using pallets. For example, build a hog crate with a pallet-type bottom. Then, haul the stubborn sow from the farrowing house to the pasture. If you want to unload her directly into an individual house, just back up to it, and unload her right into it. Another quick trip for the pigs and the job's done.

Self-feeders on a pallet base can be brought into the feed supply area for filling. This eliminates loading the feed sacks and then handling them again to fill the feeder in the feed lot.

The hitch-mounted fork lift on the rear is not intended as a means of stacking materials such as can be done with the specialized industrial-type outfits. Its purpose is to lift the load high enough for convenient transport. The loader-mounted fork lift on the front will lift loads high enough to permit some stacking . . . or lifting of bales into a mow, for example.

However, when transporting a load with either type fork, it's a good idea not to lift the load any higher than necessary, especially with heavy or wide loads. Keeping the load low reduces the hazard of tipping.

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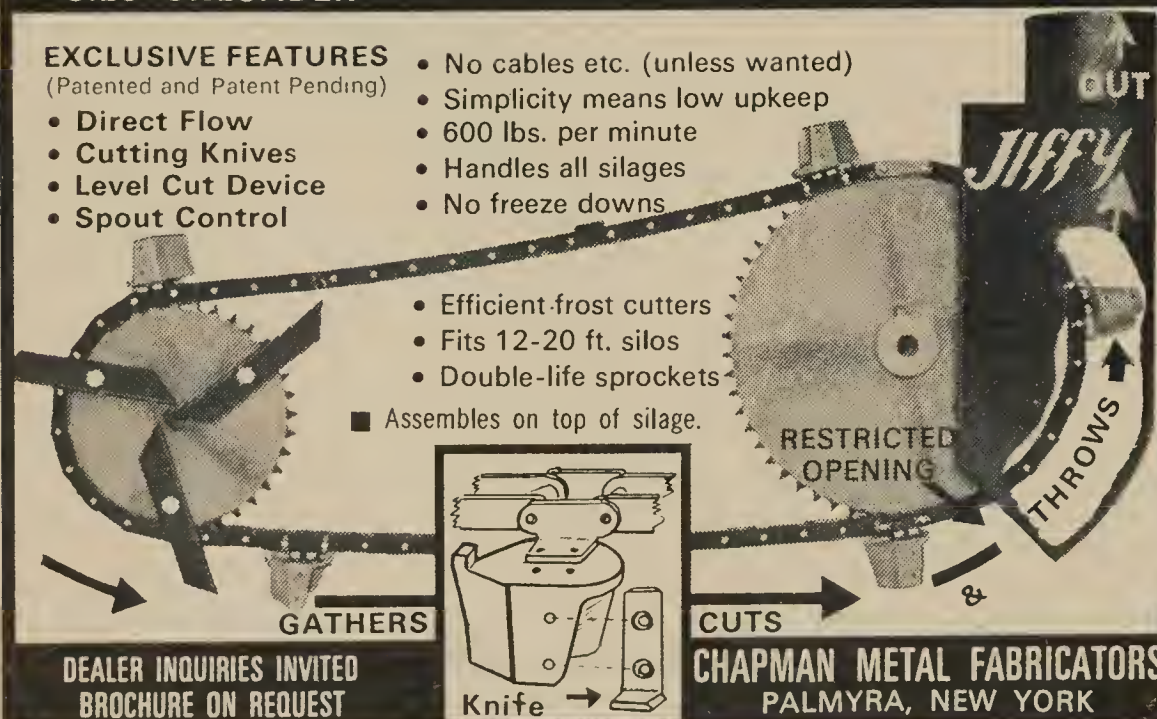
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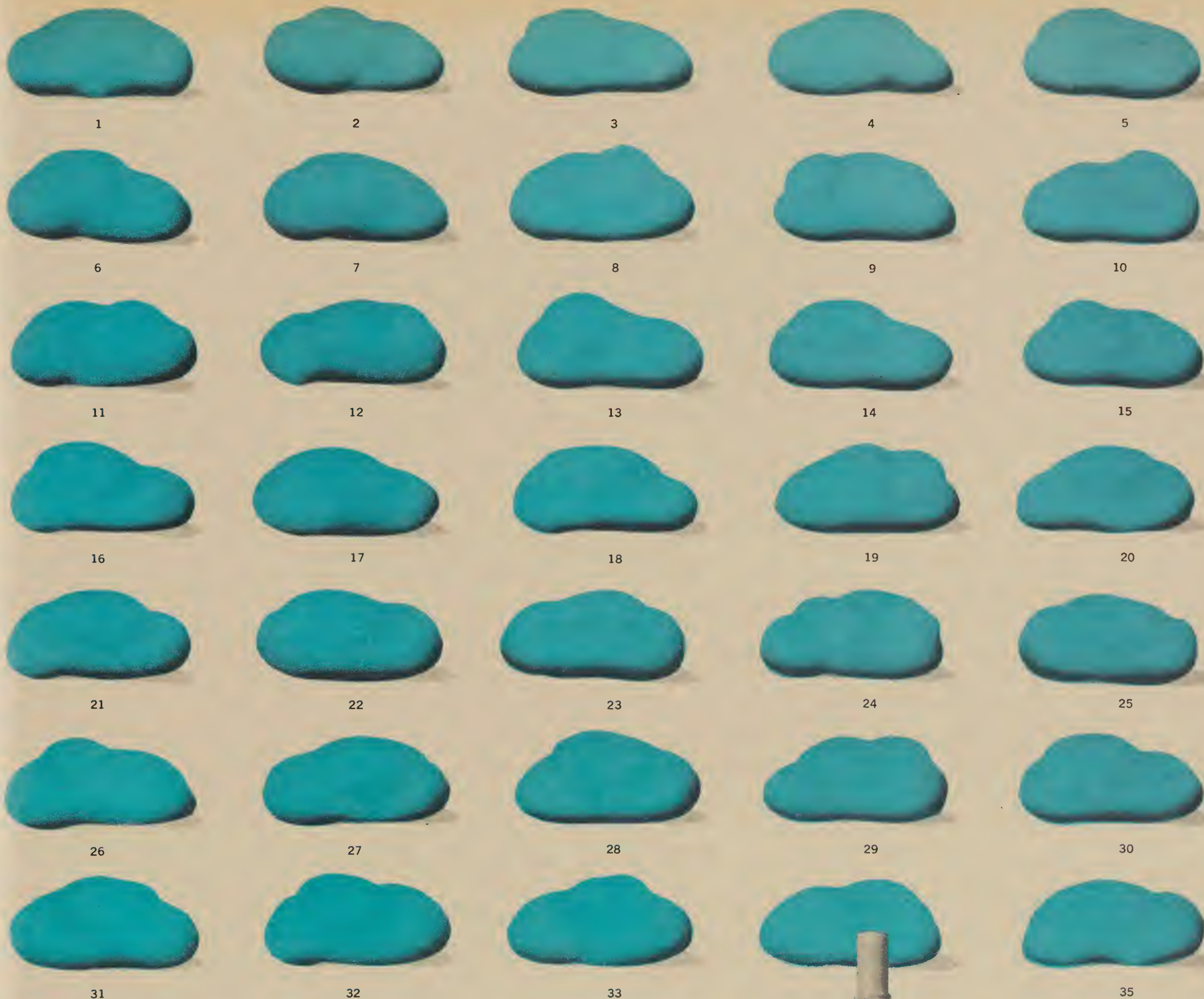
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This can happen on your farm 35 times after you buy just one 2½ ounce can of new RATicate* foam bait rat killer.

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And, how much time do you spend putting boards or boxes over old-fashioned rat killers to protect your pets and livestock? Then, how long do you wait for your dead rats? 7 days? 10 days? 2 weeks?

You don't go through all of that trouble with RATicate*. RATicate* kills only rats. Not chickens or pigs, horses or cows, dogs or cats. Just common brown rats. And, it works in hours, not days or weeks.

When you heft a can of RATicate* at the store, remember this—that tiny can packs enough killing power to kill 140 times its weight in rats. After you price it, divide the price by 35 dead rats. It's easy to see why RATicate* is such a good buy!



RATicate also comes in new grain bait trays...
10 trays to a box—enough to kill 10 rats*



HOW TO GROW VEALERS

by W. D. Lashbrook*

THE PRODUCTION of choice veal without nurse cows is a new science. Only recently have milk replacer formulations been developed that will consistently produce the type of veal the discriminating buyer wants.

A successful veal-producing program includes many aspects. Feeds and feeding, health, management, buying and selling are key factors that can spell success or failure. Here are some of the more important management tips that can help you become more successful in a veal operation.

Buying Calves

Generally speaking, calves weighing from 100 to 110 pounds will finish out sooner and require less feed per pound of gain. However, these calves often sell at a premium. Because they are more efficient, one can afford to pay about \$4 more for calves in this weight range as compared to 90 to 100 pound calves.

The majority of calves offered at a commission sale are in the 90 to 100 pound bracket. It will take 7 to 8 weeks to bring them to 200-pound market weight. Daily gains will approximate those in the 100 to 110 pound bracket.

Avoid calves weighing over 110 pounds; frequently they carry extra condition and sell at a premium per pound. In some cases they are harder to teach to drink, and do not seem to have as much vitality as smaller calves.

Unless the purchase price is extremely low as compared to heavier calves, smaller calves (80 to 90 pounds) should also be avoided. These calves are generally more refined and do not gain as fast. There are exceptions, however. For a market that requires 185-pound finished calves, the 80 to 90-pound calves are ideal.

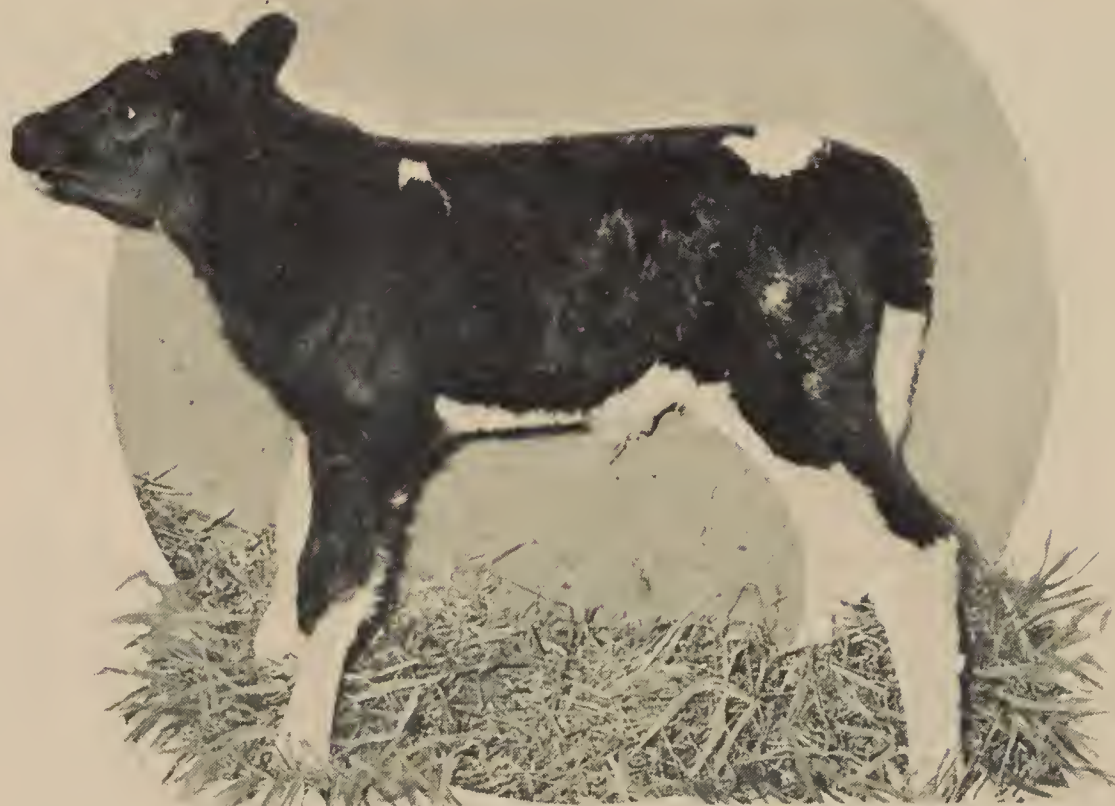
Most veal producers prefer Holsteins because of the numbers available, the heavier initial weight, and the breed's ability to make efficient weight gains. Holstein and beef breed crosses are also popular with some feeders. However, their beginning weight will usually be less, and more time will be required to bring these crosses to 200 pounds.

Brown Swiss calves are discriminated against in some finished veal markets because of larger bone. They will, however, make very efficient gains.

Ayrshire calves, especially the thicker kind, will make good vealers; however, the number available is limited in most areas. Guernsey or Jersey calves, because of the tendency toward refinement and lack of muscling, should not be used in a veal program.

In general, heifer calves will

* Superintendent, Beacon Dairy Research Farm



weigh slightly less initially, take slightly longer to finish out, have a superior finish and have slightly more resistance to disease than bull calves.

Health Important

One cannot be absolutely certain that a calf is 100 percent healthy. Calves showing any sign of sickness at purchase time should never be bought. Even at that, perfectly healthy-appearing calves can be sick today and dead tomorrow.

A bright eye, erect ears and frisky movements are evidences of good health. Since scours is the most common ailment affecting bob veals, be sure the tail and rump of the calf are dry and clean.

A dried or missing navel cord indicates that the calf is at least two days old and has probably received adequate amounts of colostrum milk. A thick, wet navel cord indicates the calf is just hours old and may not have nursed to get the protective benefits of colostrum milk.

Beware of the "cheap" calf. He's cheap because something is wrong with him that you perhaps didn't notice, but other prospective buyers did.

Selling Calves

The actual sale of your veal calves is of extreme importance. Check thoroughly all veal outlets in your locality. Some commission sales have a number of buyers looking for choice vealers. Other sales have little or no demand for choice calves, but will buy the plainer kind... at a lower price, of course.

Check with local butchers. Often they want two to ten choice calves a week and are willing to pay a premium.

Calves should be sold when finished regardless of age. A choice veal calf will have thickness and muscling throughout. Most will have pronounced "buttons" or "pinch" on either side of the tail head. The loin will be full and well covered.

Always remember, occasionally

you can have a "dud" calf, one that never does well and will never finish out. Most producers will eliminate him somewhere along the line. If you sell direct and receive top prices for your calves, you may want to find another outlet for your occasional poorly-finished calf. By doing this, you are protecting your good market.

Equipment

A well-ventilated building that is relatively free from drafts is adequate. Freezing temperatures will not hurt veal calves. However, rates of gain slow down during the coldest weather. Large-scale operations (35 or more calves on feed) can easily pay the added cost of heat by better feed conversion. From the labor efficiency standpoint, calves should be fairly close together.

For large-scale operations, individual stalls are preferred; smaller operators may tie calves along the walls of pens. Keep calves tied at all times unless automatic feeders are used. Individual stalls give some isolation in the case of disease outbreaks. Build

stalls so feeding can be done from a front alley, either in a manger or on the floor of the stall.

Stall widths of 20 to 24 inches are preferred. Make stall partitions of a solid material such as 1/2-inch exterior plywood. Make the front of the stall as open as possible to allow free passage of air. Length can vary depending upon whether slats or bedding are used. With slats, the stall should be at least 4-1/2 feet long. With bedding, the stall need only be 3-1/2 feet long.

Some producers prefer slats, others bedding. Each system has its advantages and disadvantages. Slats require no bedding, therefore less manure to handle. Manure can be removed by water; however, this means proper slopes and drains. In most cases new concrete work must be done, thereby increasing the cost. A liquid manure system needs some kind of a disposal field or tank.

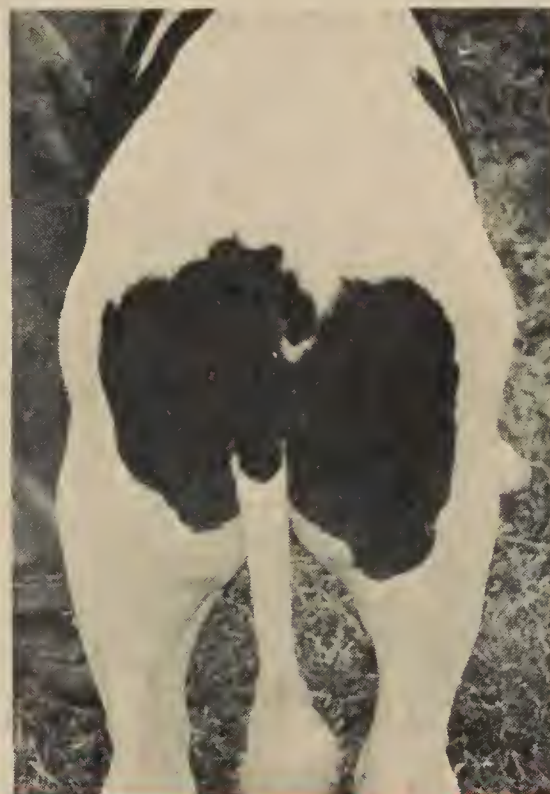
Calves on slats appear to be more uneasy than those on bedding. Whether this has any effect on weight gains and feed efficiency is unknown. It is harder to keep calves clean on slats as the manure is often quite sticky. Eventually, however, it is tramped through the openings.

Wood slats wear very quickly and are extremely difficult to clean. Expanded metal is proving to be much more desirable.

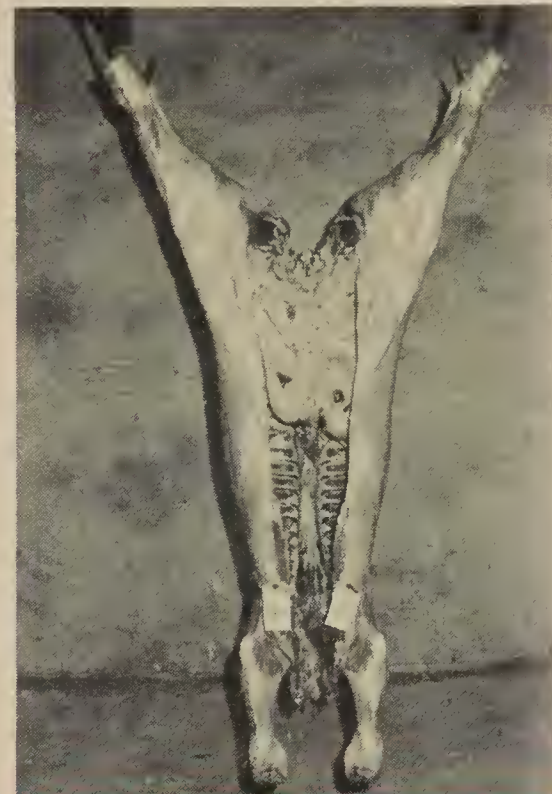
If bedding is used, a manure pack is allowed to build up and heat is produced to help keep the barn warmer in cold weather. However, it also adds to moisture problems. A built-up manure pack, though, is preferred to daily cleaning. Add enough bedding daily to keep the surface of the pack dry. Remove all manure and bedding after each batch of calves, and scrub and disinfect the stalls. If at all possible, allow stalls to stand idle for a short time.

Ground corn cobs or sawdust are preferred over straw for bed-

(Continued on page 14)



A choice veal calf. Note full, well covered loin and plump rounds.



Deposit of kidney fat indicates choice veal. Tags show Kosher acceptance.

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Brant—Thomas C. Chiavetta
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Bronx—Portable Equip. Distributors
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Burke—Cowan's Esso Service

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Clinton—Clinton Farm Supply
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Cornwall-on-the-Hudson—Ed's Mower Shop
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Elmsford—Stillwell Equipment
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Ft. Johnson—Jim's Garage
Ft. Plain—Hallsville Farm Supply
Freedom—Mc Kerrow Bros.
Freeport—Freeport Equip Sales & Svc.

Glen Cove—Larry's Mid-Island
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Greenville—Greenville Farm Supply

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Ithaca—Seneca Supply & Equip. Co., Inc.

Jamaica—Sheehan Hardware Co.
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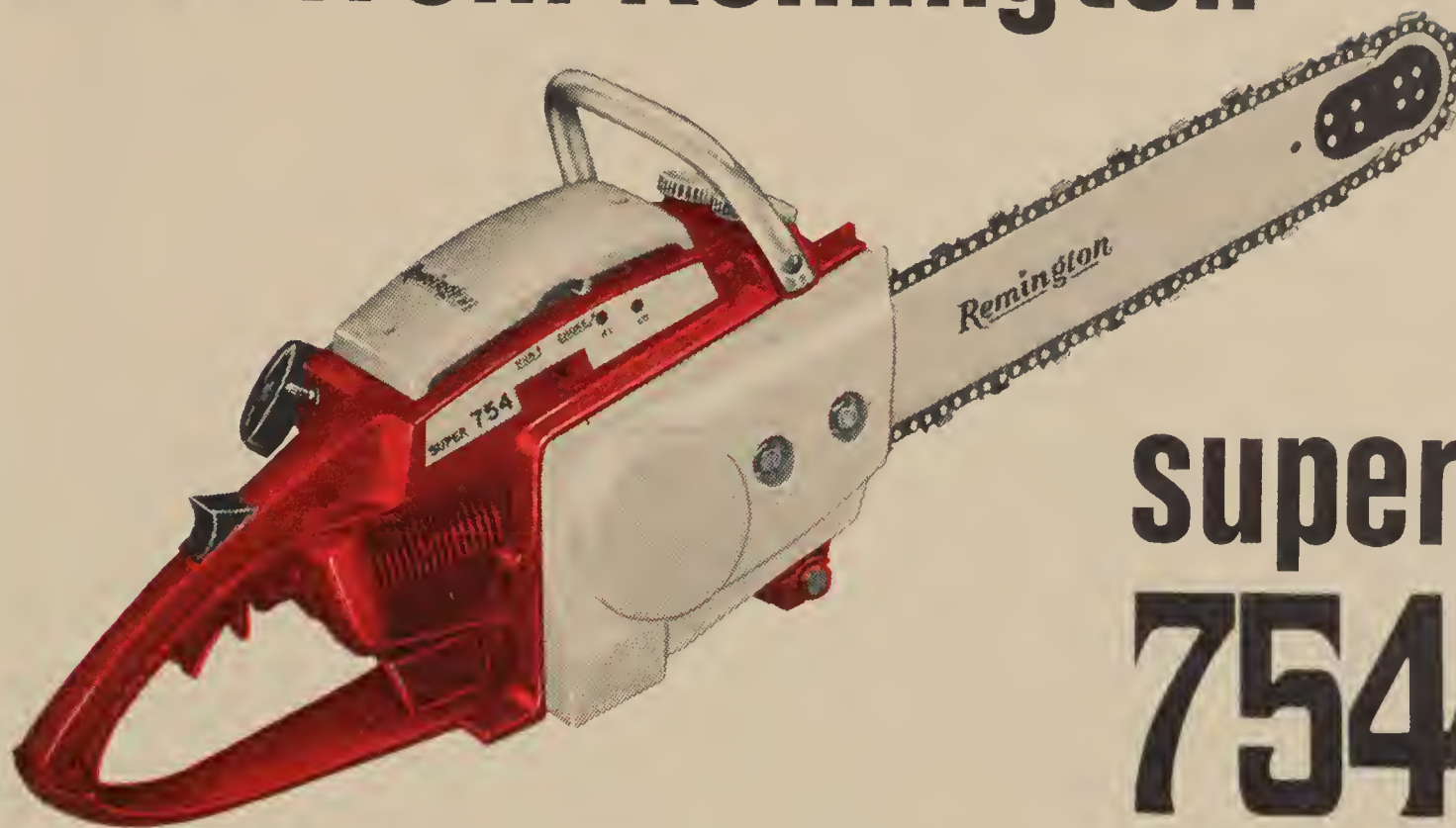
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King Ferry—Gilling & Nedrow
Kingston—Power Mower Repair
Knowlesville—Knowlesville GLF Farm Store

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Livonia Center—Day Tractor & Impl. Co.
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Lyons—Schleede Farm Supply

Madison—Farm & Home Store
Marcellus—Russell Equipment Co.
Margaretville—Douglas Kelly & Son
Marlboro—Ralph C. Herman Co., Inc.
Massapequa—Fort Neck Tool Rental Co.
Mayville—Art's Lawnmower Shop
Mechville—Quack'bus Mower & Eng. Sls. & Svc.
Merrick—Marshall Machinery
Mexico—H. G. Miller Service
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Trumansburg—Maurice Bowers
Tupper Lake—Eugene Fortier

Vails Gate—Vails Gate Rental Mart
Vermontville—Mac's Service

Walton—Russell's Sales & Service
Walworth—Duell's Garden Store
Waterloo—Finger Lakes Equip. Co.
Watkins Glen—Glen City Garage
Weedsport—Blumer Supply
Wellsville—Chiavetta Bros., Inc.
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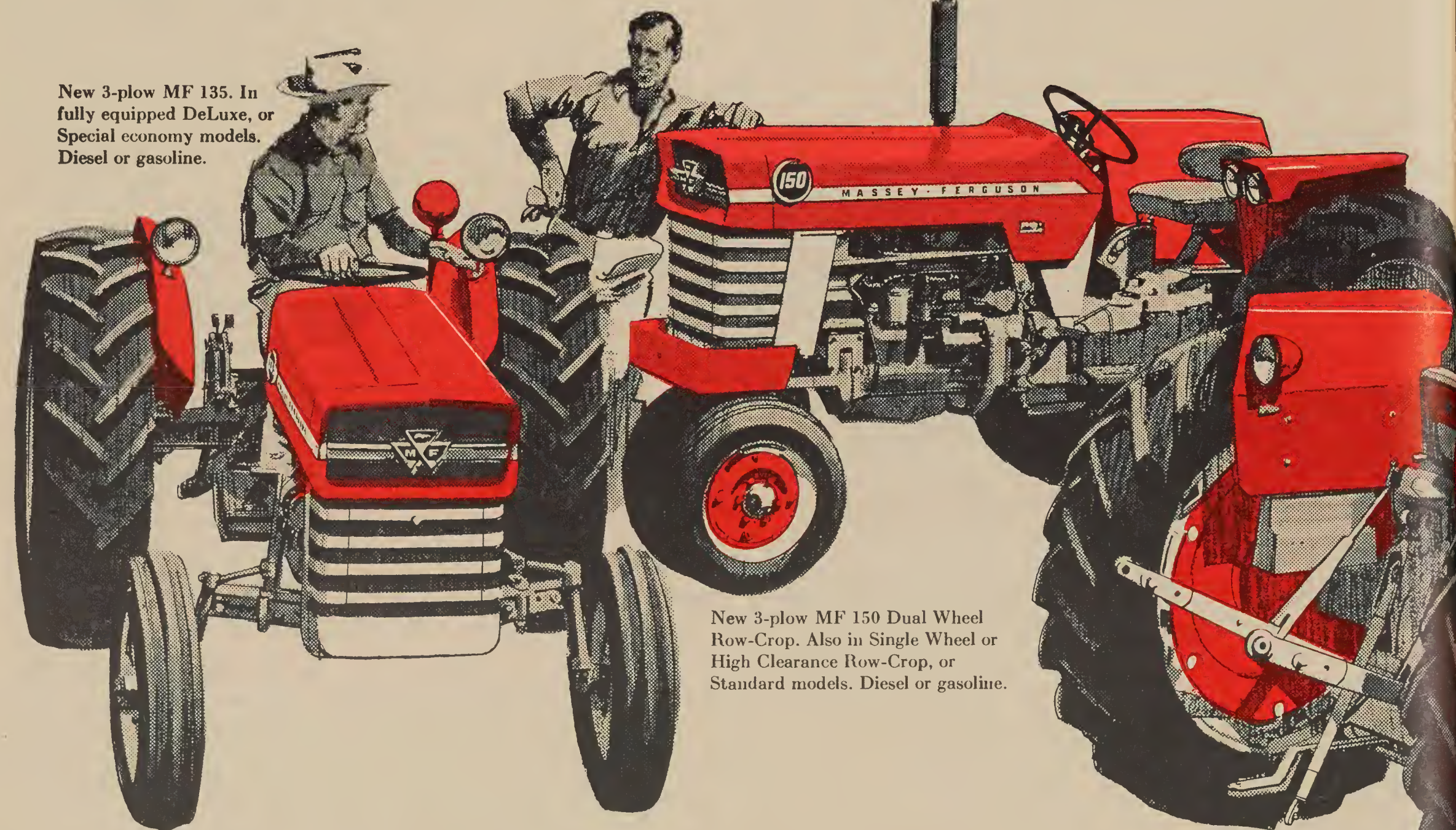
Elmer—Deibert Robinson
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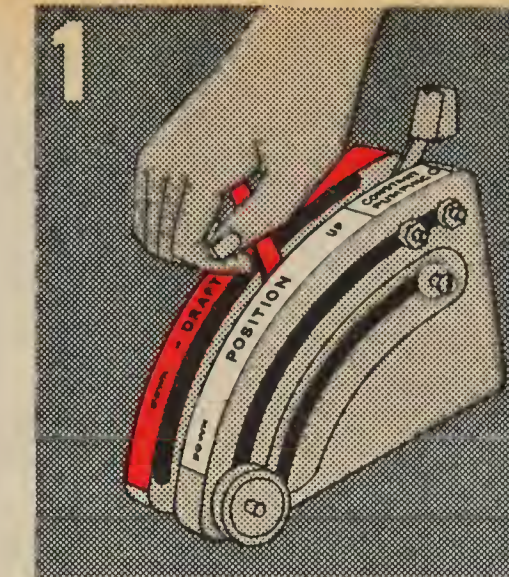
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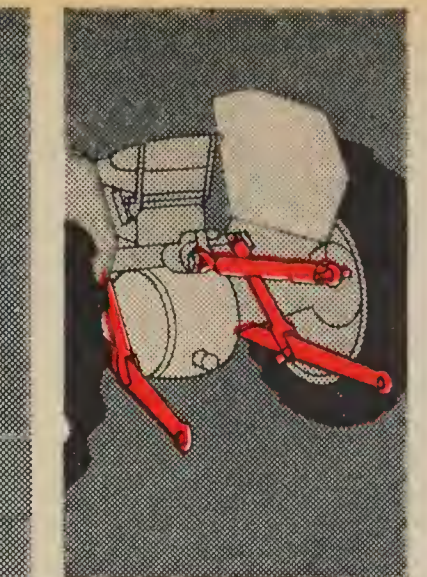


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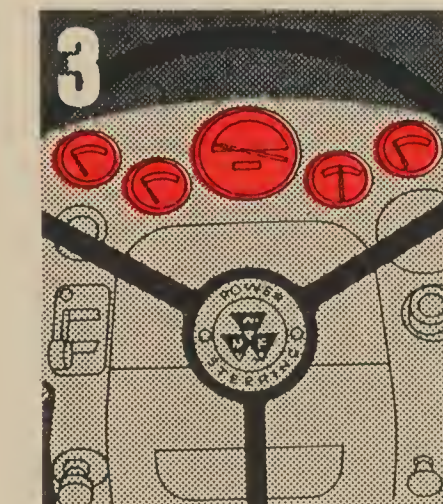
New 1-plow MF 165 High Clearance Row-Crop model. Also in Standard. Diesel or gasoline.



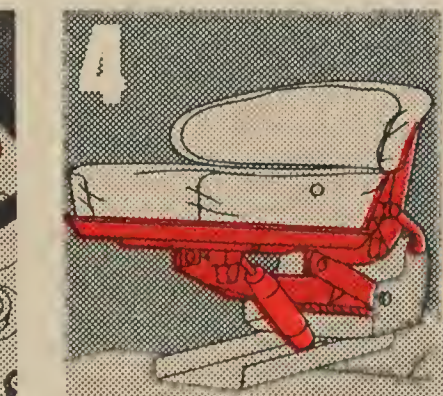
Advanced Ferguson System adds new work power to mounted and semi-mounted implements. Now with stepped-up hydraulics for more "muscle" and lift—more precise implement control—fast, automatic draft response to changing soil conditions.



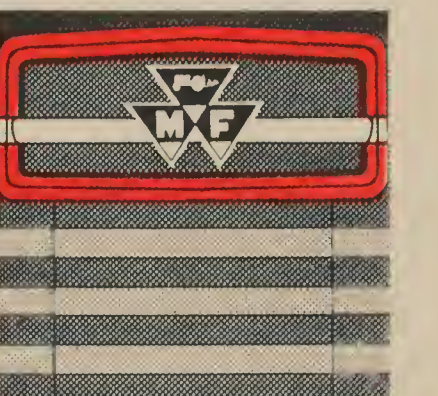
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PONDERING A POND?

THE LONG DROUGHT last summer made many a man wish fervently that he had a farm pond. It's a nice thing to own in any year, and now is a good time to think about one . . . perhaps to the point of starting action.

There are at least five good reasons for making a pond — fire protection, water for stock, irrigation, spraying to control insects and diseases, and recreation, including swimming and fishing. You may not have use for all these purposes, but the chances are that at least a couple will apply to every farm in the Northeast.

However, it's not just a matter of digging a hole and waiting for

it to fill up with water. There are requirements that need to be met for a good pond, requirements that should be considered before you start building a dam or digging a pond.

How Big?

Take the matter of fire protection. A pond so far away it can't be reached, or too small, or covered with a foot of ice isn't much help. It should be within 500 feet of any building you want to protect, at least 8 feet deep, be within 15 feet of a driveway, and have capacity for at least 100,000 gallons. For possible winter use, install a dry hydrant, a barrel, or

an oil-soaked plug so you can get at the water when the pond is frozen.

Suppose water for the stock is your chief need. A cow will drink from 35 to 50 gallons of water a day, so a little figuring will suggest the total need. But that alone won't give you the right size. It's suggested that a pond be built to hold at least six times the minimum needed. That's partly to allow for seepage and evaporation, partly for long dry spells.

In case water for your spray program is your chief need, you'll need to consider other factors. Water is heavy, and the nearer the pond is to the crop you intend to spray, the less the cost of spraying will be. In fact, several smaller ponds rather than one big one may be the answer. It's wise to build a pond or ponds with a total capacity at least three times your estimated needs.

Irrigation, Too

Most of these requirements also apply to a pond for irrigation, the chief difference being that it takes an enormous amount of water to get results in a dry spell. From 80,000 to 300,000 gallons of water will be needed for each acre to be irrigated. Unless there are special soil and water table conditions, it's not often that enough water is available in a farm pond to irrigate any considerable area. Before making a pond for that purpose it's a good idea to get an

expert opinion of the possible results.

If you like to fish, you can grow them in any good farm pond. Trout are the most choosy, and require a good-sized deep pond (8 to 10 feet) where the water in the deepest part will never be warmer than 74 degrees Fahrenheit; if you stock brook or rainbow trout, keep all other species out. In warmer ponds combinations of bass and bluegills, or bass and golden shiners, work well. Trout seldom or never reproduce in ponds, so restocking every second or third year is necessary.

The only requirement for adding swimming to your enjoyment of the pond is a springboard and a bathing suit . . . unless you plan to do your swimming after dark!

How To Do It

If you have read this far, don't stop. There are a few other questions to be decided. For example, where will you put the pond . . . and will the water be held by a dam or in a dug pond?

A dug pond is simpler and, of course, requires a reasonably level site. However, you will have to remove a cubic foot of dirt for every cubic foot of water stored. If a stream is running near the buildings, it's worth thinking about a dam.

However, there are numerous problems with damming a stream

(Continued on next page)

American Agriculturist, September, 1965

too complicated to discuss in a short article. One should be mentioned, namely that in most states there are legal requirements and restrictions, and a pond owner is legally liable for damage if a dam goes out. The owner may also be liable in the case of all ponds if a person is killed or injured, because ponds are legally called "attractive nuisances." In any case, a liability insurance policy is a good protection.

In the case of a dug pond, a drainage area of five acres will usually provide enough water for a pond holding a million gallons. But the pond won't hold it long if the subsoil is gravel, or if there are rock outcrops along which water can seep. It follows, then, that it's important to check on the subsoil under the proposed pond location. A relatively impervious subsoil at least 2 feet deeper than the pond depth is needed unless there is a permanently high water table in the area.

Maintenance

After a pond is built there will be some maintenance needed. It's better to fence out animals, especially if there is a dam to hold the water. Often muskrats dig holes through which water will leak. Most ponds have weed problems, but weeds are less of a bother in relatively deep ponds with steep sides.

Fertilizing the pond with a commercial fertilizer such as 10-10-10 will help microscopic plants to

develop. These shade the water, restrict larger weeds, and serve as food for fish. Sometimes chemicals are used to kill weeds.

What Will It Cost?

Naturally, you will want to have some idea of what a pond will cost before you decide to make one. Costs will vary, but one estimate is that a pond covering a half acre and holding around a half million gallons might cost from \$400 to \$600.

Most state colleges and the U.S. Department of Agriculture have bulletins covering every phase of pond construction and maintenance. Why not write your college of agriculture and the U.S. Department of Agriculture, Washington, D.C. and ask for available bulletins on the subject? Also, talk with your county agricultural agent. He will have helpful suggestions.

Other assistance is available. Your soil conservation district personnel will make a survey and lay out a plan without cost. Some districts own equipment and will build your pond for a price, or they can help you locate a contractor with the necessary equipment to construct your pond. If you wish, you can do your own planning and hire a contractor, but most farmers find it wise to seek help from the Soil Conservation Service.

And that isn't all. Where a pond can qualify for watering stock . . .

and most farm ponds can . . . part of the cost may be paid by the Agricultural Stabilization and Conservation Service. You may get as much as 50 percent of the cost of the pond up to a maximum set by the local Soil Conservation District.

Thousands of these farm ponds have some effect on controlling floods and erosion by holding back drainage water. When you add up all the advantages and compare them with the moderate cost, it's no wonder that the number of farm ponds is greater each year. Maybe yours will be added to the number in 1965.

FARM POND

"ANYTHING we can do for you, Bill?" Barker Hopkins hollered from the green SCS truck.

"How about a good pond?" "Yep, we can do it. Just sign the application and we'll get started!"

And that is how we began our pond. Barker Hopkins, Soil Conservation Service technician, took our application to the local committee. They considered the application, then approved it.

The next step was to lay out the pond. Warren Wakefield, another technician, came up with his transit and spent three hours shooting elevations. Then he sat down at his drawing board and drew sketches of the pond wall and how it should be constructed.

We were mighty pleased to find

that a Federal law provides that Uncle Sam will pay half the cost of a fish pond up to a total of \$300, provided there is a quarter acre of surface area. So we planned to make our pond at least that size.

Built on Contract

The first pond was built on contract. We drew up and signed a contract for a flat rate of \$500, regardless of the length of time it took the contractor to dig the pond or what problems he encountered. Our net cost (after our payment from Uncle Sam) totaled slightly more than \$250, since we were required to seed down the dike and area around the pond. The pond itself was shaped like a horseshoe, and ran in depth from one to eight feet. It took the contractor about four days to complete the job.

In the fall of 1964 we decided to build another pond, this one rectangular, about 60 feet in width and two hundred in length; depth to vary from six to twelve feet. This was easy. The shovel scooped out the dirt (technically it is called a dragline) and the bulldozer spread it around the edge of the pond. Cost was higher. The bulldozer cost ran about \$12 per hour, while the shovel earned \$14 per hour. The total cost of the pond came to \$777, plus the cost of lime and fertilizer to seed down the area around the pond. — W. H. Rawlings, Rome, New York.

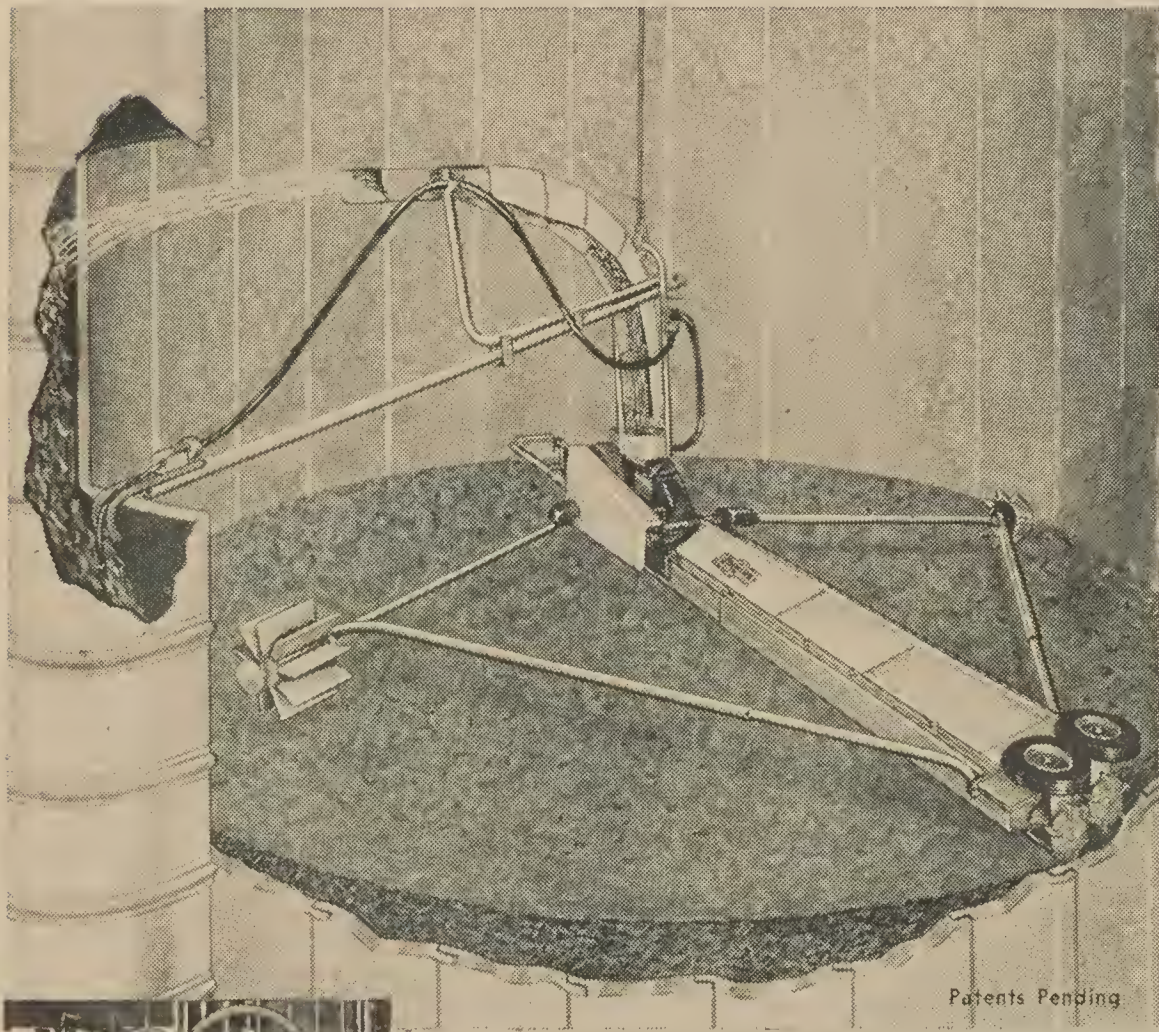
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Bellefonte—MacClay & Son
Blue Ball—Jacob Zimmerman
Butler—Wick Impl. Store
Chambersburg—Paul M. Byers
Claysville—Sprawls Hdw.
Clearville—John Mundwiler
Clifford—Homer Entrot
Cogan Station—C. H. Waltz & Sons
Corry—Corry Truck & Impl. Co.
Daylestown—Daylestown Agricultural Co.
Elizabethtown—Harold Brandt
Fleetwood—John Dietrich
Greensburg—Byron Bowman
Greenville—D. R. Thompson Farm Supply
Hughesville State College—Markle Farm Equipment
Intercause—Noah Martin
Kittanning—Snyders Impl. Store
Knoxville—H. L. Leathers & Son
Kulpville—Abraham G. Allebach
Lancaster—L. H. Brubaker
Lebanon—Paul S. Stoltzfus
Lewisburg—Campbell's Mills
Ligonier—Ligonier Sales Co.

Lititz—L. H. Brubaker
Martinsburg—W. M. Burchfield & Co.
McConnellsburg—Ott Bros.
Mercer—J. R. Moore Farm Supply
Montoursville—Keebler's Farm Supply
Myerstown—Weaver Star Silo Co.
New Brighton—Eisenbrown Impl.
New Paris—Harry L. Findley
Oakland—J. E. Peoples
Oley—Albert Nass
Quakertown—Hillegas Bros.
Salunga—S. H. Hiestand & Son
Sandy Lake—Sandy Lake Mills
Seven Valleys—Gus Equip. Co.
Slippery Rock—Wick Farm Supply
Somerset—Wiedner Farm Bldg. & Serv.
Sugar Grove—Sugar Grove Farm Supply
Troy—Welch Farm Supply
Watsontown—John M. Bomberger
West Chester—Charles J. Garrett
West Grove—S. G. Lewis & Son

VERMONT

Cambridge—T. J. McGovern Stores
Center Rutland—Dunton Bros.
Newport—W. S. Mitchell
No. Ferrisburg—Yandow Sales & Service
St. Albans—Schibi Farm Supply
Tiverton—Antone A. Medeiros
Woodstock—Woodstock Farm Supply

VIRGINIA

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Richmond—Superior Equip. & Supply
Rural Retreat—Southwestern Dairy Equip.

WEST VIRGINIA

Bruceton Mills—Wendell Eisentrout
Wheeling—Horry Cox Impl.

How to grow vealers

(Continued from page 10)

ding because they are more absorptive. Small amounts of bedding may be consumed by the calf. In my opinion, this will not have any effect on the color of the meat.

Feeding

To produce choice veal, we must force-feed calves. This means more stress and possible digestive upsets. Before each feeding examine all calves for evidence of scouring or sickness.

Appetites of calves vary considerably, especially as the calves get older. Feed refusals of one to five pounds or more are not uncommon during the finishing period. Feed refusals by younger calves is one of the first signs of sickness.

Some calves on full feed will refuse to drink occasionally, yet not be sick. Some producers will skip one feeding or reduce the amount fed periodically to keep appetites sharp. Don't become alarmed if some refusal is experienced. However, be certain to check and see if refusal is caused by sickness.

Bucket feeding is preferred over nipple feeding as it is less costly and buckets are easier to clean. Automatic feeding is not recommended since one loses the individual touch that I feel is so important for a successful veal program.

Clean feeding pails are a must. Wash and sterilize buckets between feedings. It is desirable to do the same between calves, especially until they are three weeks old. If a vat is used for quantity mixing, it too should be sanitized.

Trials have indicated that there is no advantage in 3X daily feeding as compared to 2X feeding. Feeding hours should be evenly spaced and as regular as possible.

The temperature of the milk is not as important as formerly thought. Uniform temperature from feeding to feeding is probably more important than actual temperature itself, especially with younger calves. Cold water is not recommended, however.

Health

Keeping calves healthy is one of the major problems of a large-scale veal operation. Scours and pneumonia are the two most common ailments. Virus infections of one kind or another can also be brought in with the newborn calves. Bloat does occur in rare cases.

Anyone contemplating a veal operation should develop a plan of preventive medicine. Discuss this with your veterinarian and work out a plan together.

Most veal producers use injectible antibiotics immediately upon arrival of the new calves. A total of 5 cc. of a combination of penicillin and streptomycin can be given in one or two doses.

Some producers will want to give oral antibiotics at the same time. There are several good products available. In our experience,

neomycin is the best scour fighter at the present time.

Recent observations indicate that high level vitamin A or vitamins A, D and E combinations are of value in preventing scours in newborn calves. Dosage should be at least two million units of vitamin A given orally, either in the first feeding or in a capsule.

Vitamin A need only be given once, although a repeat dosage following an outbreak of scours can be of value. Injectible vitamin A is of little value as it seldom leaves the site of injection. Continuous feeding for the first two or three weeks of lower potency vitamin A has not proven to be as effective as a one dose high level given at first feeding.

Fight Scours

In fighting scours, antibiotics are preferred over sulfas and should be given orally. Antibiotic boluses that contain substances such as Kaolin and Pectin are preferred to the straight antibiotic. These additional compounds help coat and soothe the digestive tract. After treatment, feed should be reduced for one or two feedings, depending upon response to treatment.

Pneumonia can develop at any time, but most commonly occurs between three and eight weeks of age. Symptoms of the disease are dullness, coughing, fast breathing and a temperature of 103 to 106 degrees Fahrenheit. The hair coats are rough and the calf can dehydrate rapidly; nasal discharges are common. Pneumonia often follows scours as the calves' resistance is lowered.

Present-day treatments are quite effective in combating pneumonia if administered early. Combination of sulfas given orally, and penicillin or other antibiotic combinations administered intermuscularly are especially beneficial. Some veterinarians may suggest vaccination for shipping fever; others believe it is of little value.

In general, clean surroundings, dry, well-ventilated buildings and sound husbandry can reduce disease problems. However, one must be constantly on guard. Calves should be observed carefully at least twice daily. The importance of accurate diagnosis and prompt treatment cannot be overstressed.

Record Keeping

Some system of calf identification should be developed. Metal ear tags are available at a nominal cost through farm suppliers. If possible, records on the amount of feed fed to each group of calves should be kept along with costs of medicines and supplies.

Dates of arrival and sales should be recorded on each group of calves. Purchase weights and prices along with selling weights and prices can be of value in plotting the course of your future veal operation.

Over 19 million farm animals may contact leptospirosis this year, at a cost to farmers of \$93 million, says the Animal Health Institute.

American Agriculturist, September, 1965

PURINA CALF RESEARCH

goes
beyond
nutrition...



Sound management, as well as good feeding, is studied at the Purina Dairy Research Center, Gray Summit, Mo. Plans for this Calf Startena self-feeder—a help to good management—can be obtained from Purina.

Our job at Purina's calf research unit is to help you grow big sturdy calves that will join the milking string within 22 to 24 months.

That's why we study sound management procedures as well as careful sanitation methods and good breeding. These go hand in hand with the good feeding that's provided in Purina Calf Chows.

Consider sound management. This includes developing and testing equipment like the Calf Startena self-feeder in the illustration.

The self-feeder is a real labor saver. It helps keep feed dry and fresh, lets more down into the trough as the calf eats what's already there. It's inexpensive and easy to build.

Plans for building this feeder are included in a folder which you can obtain from your Purina dealer. If he does not have copies available, write Ralston Purina Company, 112 Checkerboard Square, St. Louis, Mo., 63199. Ask for folder ZD 1373.

Good nutrition, too, is another vital part of growing calves. That's why we have let over

3,300 calves show us—in nearly 40 years of Purina research—which rations help them make sound gains quickly.

New Purina Nursing Chow with an improved energy-protein balance is one of these performance-proved rations. This milk replacer gets calves off to a fast start, is easy to mix and stays in suspension.

Nursing Chow contains antibiotics that even milk doesn't have to guard against growth-robbing scours and digestive upsets.

Purina Calf Startena, for feeding calves from 4 days to 4 months, also has a balance of energy and protein that helps calves grow—fast. It's also fortified with the vitamins and minerals calves need.

You can make Purina research work for you now. See your Purina dealer today. Ask him to tell you more about the economies of feeding new Purina Nursing Chow, new Purina Calf Startena and the research-proved programs designed to help you grow bigger calves in less time.

PURINA DAIRY PIPE-LINE CLEANER

- CLEANS PIPE LINES
- CLEANS THE BULK TANK
- CHECKS CORROSION
- PREVENTS MILKSTONE

A REAL 4-IN-1 PRODUCT! That's *Purina Dairy Pipe-Line Cleaner*... all of the features listed are rolled into one, economical, non-foaming, non-corrosive, easy-to-use, powerful cleaner for your dairy pipe-line equipment. *Purina Dairy Pipe-Line Cleaner* prevents formation of milkstone—eliminates the need for an acid cleaner and it leaves no harmful residue to contaminate your milk.

Save money by buying Purina Dairy Pipe-Line Cleaner, the 4-in-1 cleaner in 25-lb. and 100-lb. sizes.

RALSTON PURINA COMPANY • ST. LOUIS, MISSOURI

**PURINA
CHOWS**



DAIRY FACTS

By Dr. J. P. Everett
Manager, Purina Dairy Research

Can you afford to lose one calf out of every five? College field studies show that many dairy-men lose 10 to 20 percent of their calves before eight weeks of age.

This is a high price to pay. Not only is the value of the calf lost, but also a potentially fine herd replacement is eliminated.

How can we stop death losses? In our calf work at the Purina Dairy Research Center we find that — next to feeding colostrum—the most important management job is keeping the calf dry. Calves can tolerate amazingly low temperatures—but not if their bedding is wet.

If the calf is allowed enough room, bedding can be kept dry in most any type of housing. We find 25 square feet per calf is best.

With a slat floor pen, 16 square feet is adequate. Slat floors are easy to clean, make feeding and watering easy, and require a minimum of bedding.

For slat floor stall building plans, write for leaflet D 2452, Ralston Purina Company, 112 Checkerboard Square, St. Louis, Mo., 63199.

Of course, good nutrition is also essential in helping calves through the critical early days. We've made recent improvements in our Calf Chows which help calves make fast, strong growth. New Nursing Chow, for example, grew calves up to 6 lbs. heavier at 28 days of age.

Among the improvements in new Calf Startena is a better energy-protein ratio, which helped grow Holstein heifers with an average weight of 320 pounds at 4 months. This was true growth because the average increase in height at withers was 1 inch greater than in the control group.

As we continue our many calf experiments, we will be reporting results in future columns.



For traditional buildings

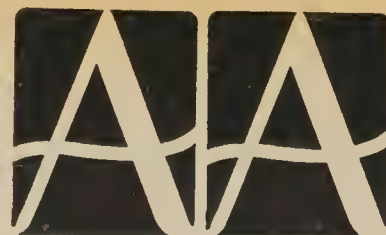


or the newest pole barn



*You can't beat the strength,
durability, and low cost of*

**BETHLEHEM
GALVANIZED
STEEL ROOFING**



FARM DOLLAR GUIDE

NEW YORK STATE and local sales and use tax exemption certificates for use by farmers have been mailed to all county agricultural agents and to the State Tax Department's eleven district tax offices. Certificates may be obtained from either source. The certificate, form ST-125, is to be used by farmers in making purchases of goods and services used directly and exclusively in the production of the products they sell.

MORE FARMERS are using complete soil tests. Soil should be tested once every 3 to 5 years, or once per rotation.

NATIONAL WHEAT CROP is up 5% from last year, according to U. S. Crop Report. Corn is up 10%; oats up 1%; late summer potatoes up 12%; apples down 6%. Predicted corn crop is 3.9 billion bushels on 57.2 million acres.

Acreage of 9 out of 10 principal vegetables for processing is up 5% from last year, and 3% above average.

ESTIMATE OF 1965 LOSS to California asparagus growers, workers and processors, partly due to labor shortage, is \$1,372,000. Labor shortage was due in part to U. S. Labor Department's refusal to authorize use of Mexican labor. One reason given was to lower U. S. unemployment, but most U. S. workers were not interested in so-called "stoop labor." It could happen here. In fact, Senator Williams of New Jersey is pushing five bills in Congress that would seriously affect farm labor.

"HIGH IN PROTEIN, LOW IN CALORIES" printed on the egg carton has been declared "misleading and a labeling violation" by the Food and Drug Administration of the Department of Health, Education and Welfare. The slogan has been used by PENB (Poultry and Egg National Board) and several other poultry industry organizations. They expect to pursue the matter further.

TEMPERATURE affects milk production, with high temperatures reducing production more than low. Optimum for dairy cow is 40° F. to 75° F. Short periods of temperature extremes have relatively little effect on production.

FROM IOWA COMES STATEMENT that more sows are ruined by over-feeding than by feeding too little. Some producers have cut feed to 3 or 4 pounds a day! Sows farrow more regularly, and live longer when fed at low levels.

REPORT BY National Research Council to Secretary Freeman recommended abandoning "zero tolerance" as applied to pesticide residues as impossible to administer, and substituting term "negligible residue" or "permissible residue." Improved testing methods detect traces of pesticides in most samples.

NATIONAL APPLE INSTITUTE members "guess" U. S. 1965 apple production at 131,594,000 bushels compared to the 1964 crop of 140,345,000. The Northeast estimate is up slightly from last year, with New York about the same and New Jersey down slightly. Weather will be big factor in final crop, especially in drought-stricken Northeast.

McINTOSH IS BY FAR the most important apple variety in New York, with over 7 million bushels produced in most years. Rhode Island Greening is second, with around 3 million bushels, followed by Cortland, Rome Beauty, Red Delicious, and Ben Davis.

"MASTITIS AND MANAGEMENT," published by the New York Extension Service, advises: "Use two sets of inflations and alternate each week. Place the used set in an enamelware container and cover with a lye solution made by adding 2 heaping teaspoonfuls of lye flakes to each quart of water used.

Boil actively for 15 minutes, and soak them in the solution as it cools for at least 8 hours, or overnight. This practice sterilizes the inflations, removes butterfat from the rubber, protects the resiliency, increases the longevity and improves milking efficiency."

ATROPHIC RHINITIS, a disease of swine characterized by persistent sneezing, slow weight gain, and snout twisted to one side, is under study at Cornell University. Research indicates calcium-phosphorus imbalance in ration causes problem. Condition can apparently be caused by underfeeding calcium or overfeeding phosphorus.

POULTRY INDUSTRY claims government ignores squeeze on broiler exports as result of European Common Market agreements. Last year 110 million pounds were sold abroad; likely to be much lower in '65.

R.B. Tootel, Federal Farm Credit Administrator, predicts by 1980 a million U.S. farms will have average gross annual income of \$45,000; also that three-fourths will be family farms with family providing at least half the labor.

American Agriculturist, September, 1965



well fed but starving

Protein starved. Silages . . . forages . . . modern food rations, as fed by most dairymen, provide all the energy needed for top production. But essential *protein* is often lacking.

The Stafford brothers of Peru, N. Y. found this out. They have increased the level of corn silage production on their farm and feed it generously to the 75 cow (now 100 head) herd. Good hay is provided

and a complete grain ration.

A year ago, when the Agway man from Peru Agway store analyzed the Stafford herd feeding program he was startled to find it did not include adequate digestible protein.

The Staffords changed the schedule to include the 1500-20 Milkerpels, recommended by Agway. This ration fitted the forage program to assure the right protein level. Re-

sults? Feed cost ratio down. Production up. And this was accomplished with a 15,000 lb. herd . . . an outstanding upstate New York dairy operation.

Don't let protein starvation pull down your herd production. Call Agway for a free analysis and feeding recommendation to assure a balanced energy-protein intake.

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DAIRY FEEDS AND SERVICES

News and Views from NEW YORK AND PENNSYLVANIA



Herd-Sized Fallout Shelter?—Kenneth Litton, Avon, New York, a beef cattle raiser on a large scale, claims that if he constructed a ramp to the salt mines 400 feet under his property he would have the only herd-sized fallout shelter in the country. Although it has its possibilities, the salt mines bring on water problems. His windmills pump water for the first three to four years, then start pumping salt.

For 4-H Clubs—Just off the press

at the Pennsylvania State University are two manuals designed especially for 4-H Clubs. One is "4-H Leaders Handbook on Pesticides" (16 pages); the other is "Pesticides in Your 4-H Project," (8 pages). They are designed to be used in conjunction with plant, garden and crop projects.

Star Farmer—Floyd S. Dubben, Jr., son of Mr. and Mrs. Floyd S. Dubben, Middlefield, Otsego County, was named to receive one

of the coveted Star Farmer awards for 1965. Floyd graduated from Cherry Valley Central School, then continued his education at the New York Agricultural and Technical College at Cobleskill.

Married, and the father of two children, he is in full partnership with his father in the operation of a 1,000-acre dairy farm business with a milking herd of 137 Holstein-Friesian cattle. Production of the herd has been increased during the past three years from an average of 9,000 pounds per cow to nearly 13,000 pounds as a result of DHIC records. Activities for conserving water and soil resources (which were started by Floyd while in high school) have been expanded into a complete program of conservation.

Chemical Recommendations—A new horticultural Extension circular recently released by The Pennsylvania State University is entitled "Agricultural Chemical Recommendations for Pennsylvania Fruit Crops." It deals with weed control, chemical thinning, pre-harvest drop control, control of storage scald and mice and rabbits. A list of poison control centers in the Commonwealth is also given.

Wool Queen—Four finalists, each representing a Wool Co-op of the Empire State Shepherds Cooperative, Inc., vied for the honor of being the second New York State Wool Queen. They were: Diane Obrochta, Hammondsport; Gretchen Poelma, Albion; Paula Graff, Amsterdam; and Doris Elaine Butler, King Ferry. The honor went to Diane Obrochta.



New York Wool Queen contestants (l. to r.) Paula Graff, Amsterdam; Diane Obrochta, Hammondsport (named Queen); Gretchen Poelma, Albion; Doris Butler, King Ferry.



**...The most
important
reason why you
should replace
spark plugs now,
before starting
fall field work**

Tractor spark plugs used in spring plowing have, in almost every case, begun to misfire. This misfiring usually goes unnoticed, but it costs money in wasted fuel and lost power. Here's what it amounts to . . .

If you go into harvest season with worn spark plugs in your tractor, your fuel dollar surely won't buy a dollar's worth of performance—it's more like 92 cents' worth! This is what hundreds of farmers found in dynamometer tests across the country. Tractors running on the same plugs longer than 250 hours were wasting 8% of their fuel and losing 7% of their power, on the average. And most of the farmers were really surprised at these losses because they hadn't noticed any rough running or loss of power. Here's the reason . . .

A tractor engine, unlike the engine in a car or truck, works under heavy load most of the time. Under load, spark plug condition becomes critical. As electrodes wear and

fouling deposits accumulate on the spark plug's core nose, hidden misfiring develops. This misfiring usually starts after about 250 hours of operation (about six months on the average tractor). And it can actually account for fuel and power losses of up to 30% and more before misfiring or power loss becomes apparent to the tractor operator.

To avoid this serious problem replace tractor spark plugs regularly. Start with a set of new Champions *now*, before you get into heavy harvest work. It will cost you less than running on a set of worn plugs this fall! And you can save fuel money on all your farm engines, too, by replacing spark plugs regularly. See your Champion dealer for all your spark plug replacements.



CHAMPION
SPARK PLUG COMPANY
TOLEDO 1, OHIO

CHAMPION—FIRST CHOICE OF U.S. TRACTOR MANUFACTURERS

SALES TAX

As a New York State farmer, you cannot ignore the new sales tax law. While food is exempt (except that food in a restaurant is taxable if over \$1.00) the burden of proof is on the seller. If you do not as a seller collect tax, or get a signed statement from the buyer that he is exempt, you may be liable for the tax.

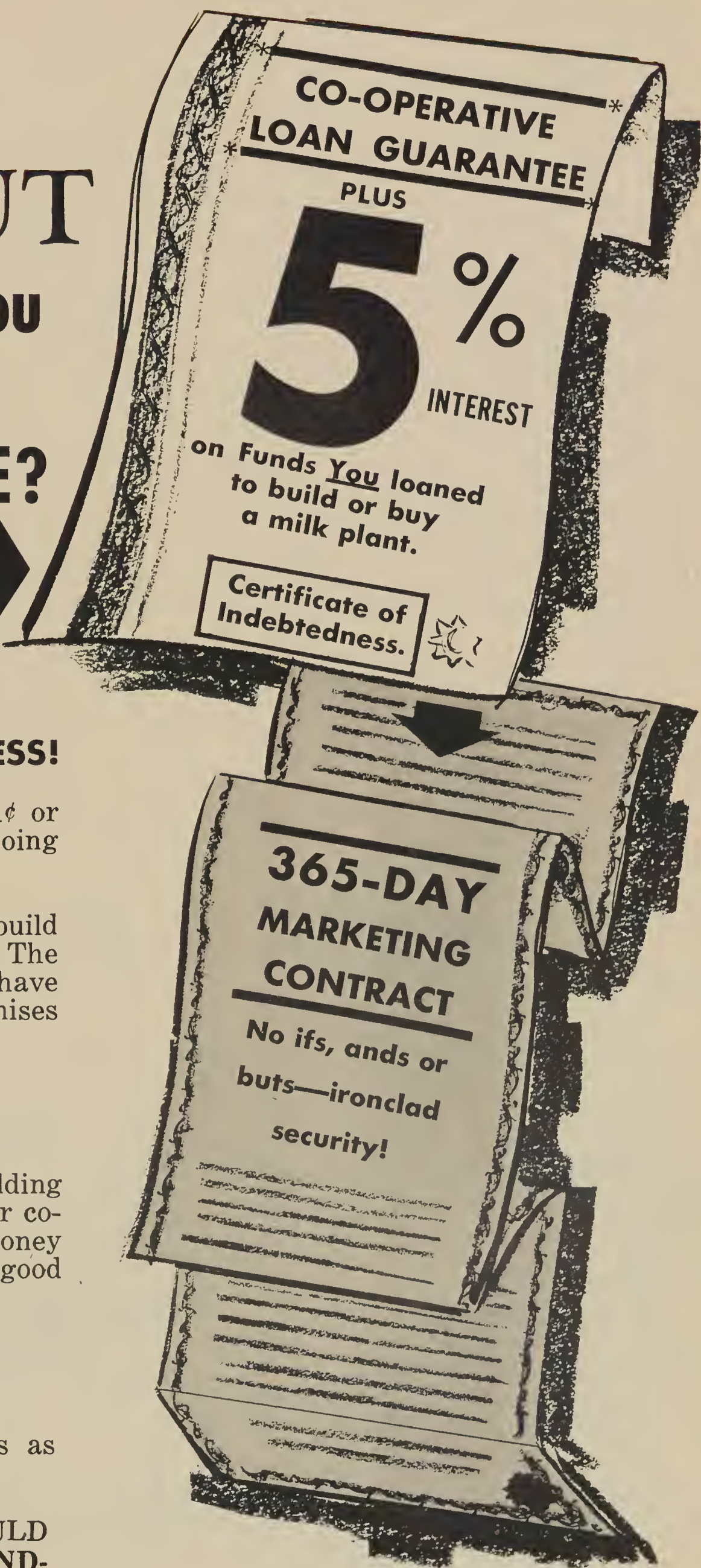
First you should get a number from the New York State Tax Commission (Form ST-105.1) identifying you as a tax collector. If you sell non-food items at a roadside stand (such as decorative corn or knitted sweaters), or if you rent rooms or cabins, you are expected to collect a sales tax and send it to Albany. If you sell an occasional used article, we are told you are exempt, but if you deal in secondhand goods you must collect the tax. This will need study. However, don't assume you are exempt from collecting tax.

You will, of course, be liable for paying tax on purchases not directly concerned in food production. You will need to get Form ST-125 to use when you make tax-exempt purchases. Most county agricultural agents have these forms.

There are Sales Tax Bureau offices in Albany, Binghamton, Buffalo, Mineola, Rochester, Syracuse, Utica and White Plains; contact your county agricultural agent for addresses and telephone numbers.



**BUT
Do You
Have
THESE?**



**IF NOT—Remember:
YOU DO NOT HAVE TO SETTLE FOR LESS!**

Just about every co-op collects dues of 1¢ or 2¢ per hundredweight, and if the co-op is doing its job, that's a bargain.

And many co-ops need additional funds to build or buy marketing facilities. They're smart. The future will go to the organizations that have something going for them other than promises and loads of publicity clippings.

BUT

Business is business. And these plant-building (capital) funds are an investment. If your co-op or federation of co-ops is using your money wisely, it will expect certain returns and good growth in value.

SO

You should get your money back! It is as simple as that.

YOUR CAPITAL INVESTMENT SHOULD HAVE A GUARANTEED, LEGALLY BINDING REPAYMENT DATE, and if the enterprise is a really solid one, you should RECEIVE INTEREST FOR EACH YEAR THE CAPITAL LOAN REMAINS UNPAID.

The Dairymen's League for 44 years has repaid its members for capital loans—AND PAID INTEREST. We've never missed a year!

**WHY SHOULD YOU
SETTLE FOR LESS?**



THE DAIRYMEN'S LEAGUE
COOPERATIVE ASSOCIATION, INC.



ROUGHAGE SHORTAGE

by Amos Kirby
New Jersey Editor

WHAT IS GOOD for an empty silo? This is the question that was directed to the New Jersey Extension staff . . . and it was prompted by the drought that has ranged from the tips of Sussex and Cape May counties.

A look in hay barns, and the feeding of winter supplies in mid-summer, indicate that both silo and hay barn could be in trouble before snow flies.

Oleskie Speaks — I turned to Edward T. Oleskie, Extension specialist in dairy science at the Agricultural College, and asked: "What about sorghum, soybeans, or other combinations?"

His reply was: "We would certainly recommend any of those crops, or any combination, to help fill silos."

In a special bulletin on drought emergency recommendations by Messrs. Oleskie and Frank Wright, another dairy specialist, it is suggested that Balbo rye be used for fall pasture; it provides about a third more pasture than any other small grain. The specialists also add that with any luck whatever

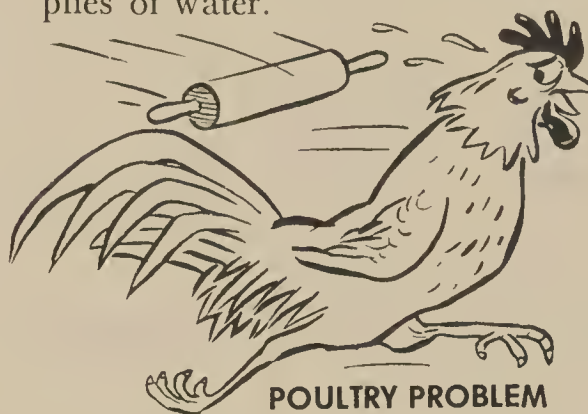
this fall grass can take a lot of pressure off winter feed supplies. **Potatoes** — With a \$4 potato market, cull potatoes may sound like a luxury item to feed cattle. But cull potatoes will be available, and considering the way table stock must be graded today, there will be supplies for cattle feeding. Potatoes as a dairy feed supplement have a feeding value almost equal to corn silage.

Stretchers — Oleskie and Wright have a term, "roughage stretchers," which applies to citrus and beet pulp; they contain as much energy and nutrients as most grain mixtures. To the list they add molasses as a feed itself . . . and when mixed with water and poured on poor quality hay it wakes up the hidden flavor, much like "Accent" on meats, salads, and other kitchen items.

Alfalfa-Corn Failures — Speaking of dryland farming in New Jersey, Roger Locandro offers a suggestion on how to produce good alfalfa and corn in a drought year. "Most crops that have been under-fertilized and under-limed have

been a complete loss," he states. "On corn, plow the fertilizer under, forcing the roots to burrow deeper into the soil for the plant food and moisture."

Irrigating Alfalfa — Fred Lorenzo, agricultural agent in Warren County, tells me that five dairy farmers in that area have been irrigating alfalfa with good results; their problem is insufficient supplies of water.



Harry Rothman, agricultural agent at Bridgeton, was asked: "What can poultrymen do to cut egg production costs?" "It's a tough question," he replied. "Some have changed over to high density systems, others are working on improved feed efficiency, and some others are putting in longer hours with less outside labor." He feels that the poultry industry is not organized, and many producers are at the mercy of marketing people, who play one area against another to get cheaper eggs.

Pollution — It is not widespread as yet, but it is creating problems for some producers. Town and

city folks who have moved or built close to poultry farms (who have whiffed midsummer city odors for years with no complaint) are creating a fuss over odors from nearby poultry farms.

On a trip with Harry Rothman I saw one of the Agway liquid disposal trucks. It looks like a solution, if one can find land on which the waste material may be spread. The cost figures (supplied by a friend who is using the system) show that it is as cheap or cheaper than the old method of using a tractor scoop and spreader.

PEACH OF A PROBLEM

The biggest pest hunt in years is underway in Camden and Atlantic counties. The problem . . . peach trees are dying, and there appear to be no known clues. Leslie Miller, agricultural Agent in Camden County, estimates that 10 percent of the 1965 peach crop and 20 percent of the trees have either died or are dying.

The situation is so serious that Dr. Leland Merrill, Jr., dean of the College, has assigned all of his fruit experts to the problem. From present indications it is a form of winter kill . . . but it goes further than that. Among possible causes listed by Mr. Miller are: the four-year drought; improper fertilization; lack of water; insufficient humus in the soil; or maybe

(Continued on page 21)

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The Dion Self-Unloading Forage Box can be equipped with right or left side delivery to suit your special needs. Standard equipment includes an extra clutch controlling the beaters.

Two Speed Angle Gear Box Drive

Totally enclosed, the 2-speed angle gear drive permits a speed range above and below that of PTO. Needs no adjustment or maintenance. Rear unloading is a standard feature of a Dion.

18" Diameter Cross Auger

A larger diameter auger is supplied as cross conveyor, insuring positive side unloading. Wear, maintenance and adjustment are reduced to a minimum.

Standard 6' High Rear Door Equipment

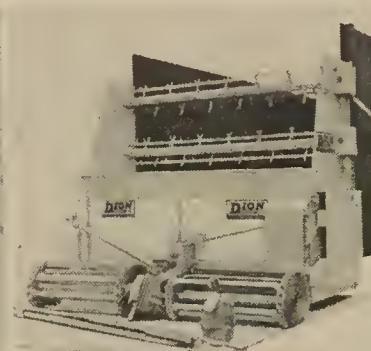
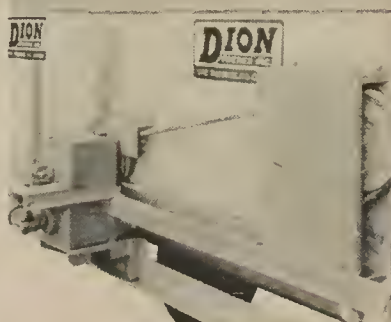
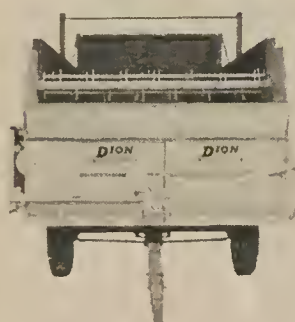
The change for front to rear unloading is made so fast that it is possible to use the Dion unloaders every day for zero feeding, filling silos and unloading bales.

Hardware Kit

Kit and plans for building the box are available for even greater economy. Standard sizes of lumber are used. The front end is supplied completely assembled, greased and factory run-in for long, trouble free operation.

Drive from Tractor PTO or Dion Blower

The PTO shaft can be connected to an independent clutch on the Dion Forage Blower, allowing one tractor to drive both units. A major economy and another Dion exclusive.



FEDERAL MILK ORDERS

AFTER A STUDY which covered the period between 1947 and 1963, Dr. Leland Spencer, senior research associate in agricultural economics at Cornell University, has concluded that Federal milk marketing orders have not been a major factor in the development of milk surpluses.

Dr. Spencer comments that many persons logically thought that federal orders would have some stimulating effect on the production and farm sales of milk. But the evidence indicates that the stimulating effect has been small.

Other Factors

"Other factors, such as government support prices and surplus removal," he says, "together with the extraordinary advances of science, technology, and management, appear to have had a far greater influence on milk supplies. Also, reduced consumption of dairy products marketed through commercial channels has contributed to the national surplus of these products at times."

Dr. Spencer notes that the rapid extension of federal milk orders has caused their effect on national supplies and surpluses of milk to be exaggerated. The regulated markets increased from 29 in 1947 to 82 in 1963; and many of the federal orders have been expanded to cover more territory and more milk. In 1947 only 24 percent of all milk disposed of by farmers for fluid use by non-farm families

was priced by federal orders; by 1963 the coverage had risen to 63 percent.

When adjustment was made to take out the effect of expanded coverage of the orders, increases in producer deliveries to federal order plants were found to be only moderately higher (in percentage) than the increase in farm sales to all dealers and plants. Dr. Spencer believes that the higher rate of increase for federal order plants was due largely to the fact that they were supplied by relatively fewer of the small marginal producers than other plants, especially

those handling milk of manufacturing grade.

The report shows the major part of the increase in commercial supplies of milk since 1947 has come about because much less milk has been used on farms, in farm separating, and in farm retailing. Only 7 percent more milk was produced in 1963 than in 1947, but deliveries of whole milk by farmers to dealers and plants increased 57 percent during that period.

Another fact brought out by the study is that the increase in receipts of milk at federal order plants has come almost wholly through greater output per farm. The average quantity of milk delivered per farm increased at a rate of 6.7 percent a year.

Extraordinary increases in farm sales of milk and cream to dealers and plants, and likewise in necessary government purchases of dairy products for surplus removal occurred between 1951 and 1953, and again between 1960 and 1962. Dr. Spencer points out that in each case the expansion of government purchases followed the raising of support prices for milk of manufacturing grade.

On the other hand, four times since 1949 the support prices were reduced by significant amounts; each time the reduction was followed by a decrease in the national surplus of dairy products, and in government purchases for surplus removal.

* * *

Kirby

(Continued from page 20)

nematodes or a combination of factors as yet not known.

Another suggestion is root stock. Ernest Christ, Extension Service pomologist, reports that he has been working on root stock for fruit trees and hopes to have a report soon.

Nematodes — Can nematodes be one of the problems? This is a question that keeps showing up here and there on other crops. County Agricultural Agent John Brockett, Atlantic County, is urging growers to have tests made of their soils where crops appear not to be making satisfactory growth.

For years carrot growers have been treating their soils for nematodes . . . no one would plant until the fields have had an application of nemacide.

A Gloucester County peach grower who had trouble with a block of peaches removed the trees, applied a nemacide, and replanted . . . today he has as fine an orchard as one would hope to find anywhere.

HALL OF FAME

New Jersey is the first state to meet the national quota on funds for the National Agricultural Center and Hall of Fame at Kansas City, Missouri. A check for \$25,000 was recently presented to James R. Isleib, treasurer of the National Center.



How are you
going to feed her
this winter?

Sometimes it takes drought conditions like those the Northeast has suffered to make dairymen realize the very great value in every mouthful of forage feed their fields produce. That's why this Fall, more than ever before, an Agrico Fertilizer Program designed for your forage production goals can pay off with extra yields, extra grazing days and extra feed value in the animal.

We recommend your Fall Program include:

1. Topdress pastures and hayland to boost yields, extend grazing periods and improve nutritive content.
2. Seed a dual-purpose wheat with enough Agrico for Grain fertilizer to assure lush grazing and good grain production.
3. Topdress alfalfa and other legumes with Agrico Phosphate and Potash to build a vigorous

stand that can resist winter stress and get off to a fast start in the Spring. See your Agrico Dealer now. He'll get you started on your individualized forage program for better production and greater profits.

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WHEEL-TRACK CORN PLANTING

by Hugh Cosline

OVER the years more corn ground has been "punished" by too much harrowing than has suffered by too little!

The belief that this is true brought the "plow plant" proposal, where the corn planter was hooked behind the plow and the corn was planted right on the furrow slice. As far as I can see, this method never became popular, but the idea of "minimum tillage" . . . just enough to make a seed-bed . . . did grow. And one of the adaptations has been named "wheeltrack planting."

To see what corn growers think

about the method, I talked with a couple of Tompkins County (New York) farmers who have been planting corn that way for several years.

At Halsey Farms (John Duddleston, proprietor) wheel-track planting has been used for seven years. A talk by Professor Peterson of Wisconsin at a meeting of seed growers was the starting point.

One of the advantages pointed out to me is the saving in labor and cost. A clodbuster is hitched behind the plow, and within a few hours (usually the same day) the corn is planted. That's two times

over the ground instead of several.

But that's not all. Tractors tend to compact the soil and damage its tilth. Because wheel-track planting has required less tractor travel for several years, the land at Halsey Farms plows earlier, with less draft, and plow points last three times as long! This makes for better soil tilth, so that there is less runoff of rain . . . and this moisture retention, in turn, results in a bigger crop of corn.

Then, because Halsey Farms grows seed corn, the stalks are plowed under and the bigger growth of stalks adds more or-

ganic matter, which improves tilth.

Corn is planted in rows approximately 40 inches apart. The front wheels of the tractor are spaced 40 inches, and the rear wheels 160 inches, so a row of corn is planted in each wheeltrack.

Beach Stover, also in Tompkins County, who grows corn as a cash crop, has a slightly different planting method. He has been using wheel-track planting for three years. He started with a two-row planter, but now uses a four-row. However, he adapted a tractor in the farm shop so that it has four rear wheels, approximately 40 inches apart, so that each row is planted behind a rear wheel.

Beach tells me that one of the big advantages is that he can start planting corn earlier (April 18 in 1964). He can do this because the soil is dry and loose, probably also because seed corn is treated to prevent rotting and because modern varieties germinate at a lower temperature.

Beach also uses a clodbuster behind the tractor. "If plowed land lies overnight and we have rain, I can start plowing new ground some time the next day and plant corn before the plowed land that was rained on is suitable for planting."

Both farms use atrazine in a band to control weeds. Both agree that weeds start slowly between the wheel tracks. Sometimes there is moisture enough so they germinate, but not enough to keep them going, so they die an early death.

After visiting with these men, I wondered what effect soil type might have on this method of planting. Beach Stover told me that the soil on his farm is moderately heavy, and that it is his belief that the method is practical on any good corn land.

With the advantages . . . less cost, early planting, better tilth . . . I wonder why wheel-track planting isn't used more. Maybe it's because it hasn't been talked about enough. Perhaps you'd like to try it at least on part of your acreage next spring. Corn as a crop on northeastern farms is certainly increasing in importance, and anything that will lower costs and improve yields is worth thinking about!

Water

(Continued from page 7)

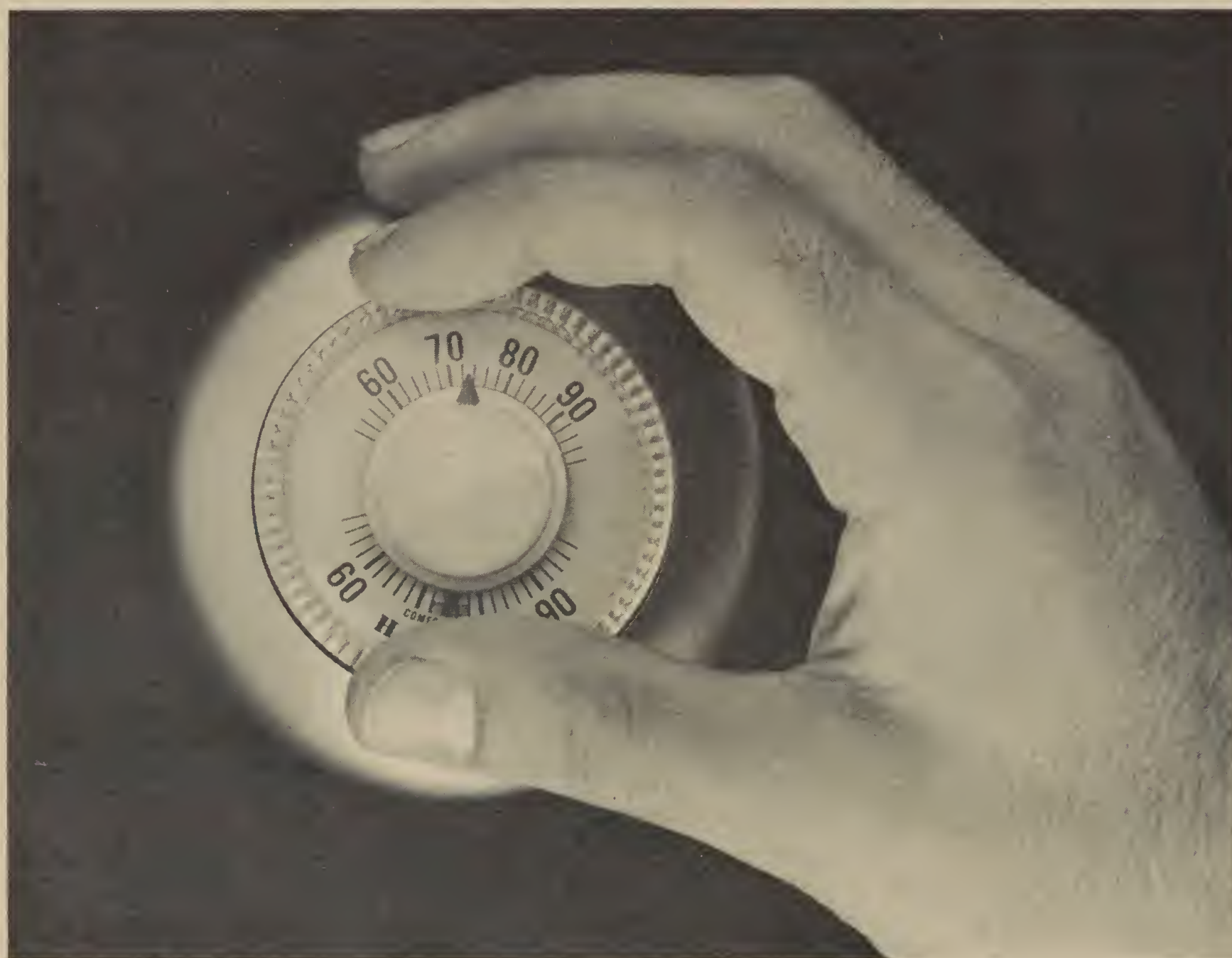
reasonable domestic use) until a permit has been obtained from the Division for a fee of \$10 per permit.

2. All such diverters of surface water must pay for water at a cost of 50 cents per million gallons for all water diverted under the permit in excess of the first 100,000 gallons diverted on any one day.

3. The diverter must report the amount of water diverted on a quarterly basis, which may entail the cost of installing a water flow meter on the pump.

4. As penalty for not observing the requirements of the law, the user can be denied the use of water.

American Agriculturist, September, 1965



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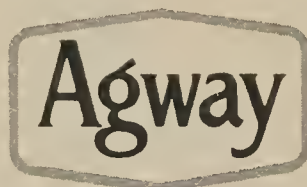
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BELTS FOR COMBINES

The Goodyear Tire and Rubber Company conducts field tests every year on agricultural V-belts for combines, under actual working conditions on farms. The program was undertaken to strengthen the company's role as a major supplier of original equipment to agricultural manufacturers. It does not sell to the replacement market.

Here are some suggestions made by their research people from tests made on 80 combines in 1964:

1. Highway traveling is one of the toughest problems for combine traction belts. They're designed for slow speeds (1¼ to 3½ miles per hour), but revving them up to move along the road creates high centrifugal forces and destructive heat. The worst thing about it, though, is the "backlash" (tension reversal) that takes place when the throttle is suddenly closed and the combine inertia slams back through the belt to the engine.

Moral: take it easy on the road!

2. Don't put any of that greasy kid stuff on a V-belt, like we once did on flat belts... it ends up making matters worse! The sticky material collects dust and grit, making a good abrasive, and eventually hardens into a smooth, slippery surface.

3. Keep belts clean; oil and grease don't mix well with belts!

4. Most important single consideration concerning belts is to operate them under proper tension... tight enough to do the job, but not so tight as to cause damage. Check equipment often enough so adjustments will be made before serious problems develop.

5. Slippage can be particularly critical on some of the variable speed drives. Pulleys must be tight on the shaft and in proper alignment... replace them if they're getting worn. The keyway in the hub of the pulley can get worn, causing a looseness that puts extra strain on the belt.

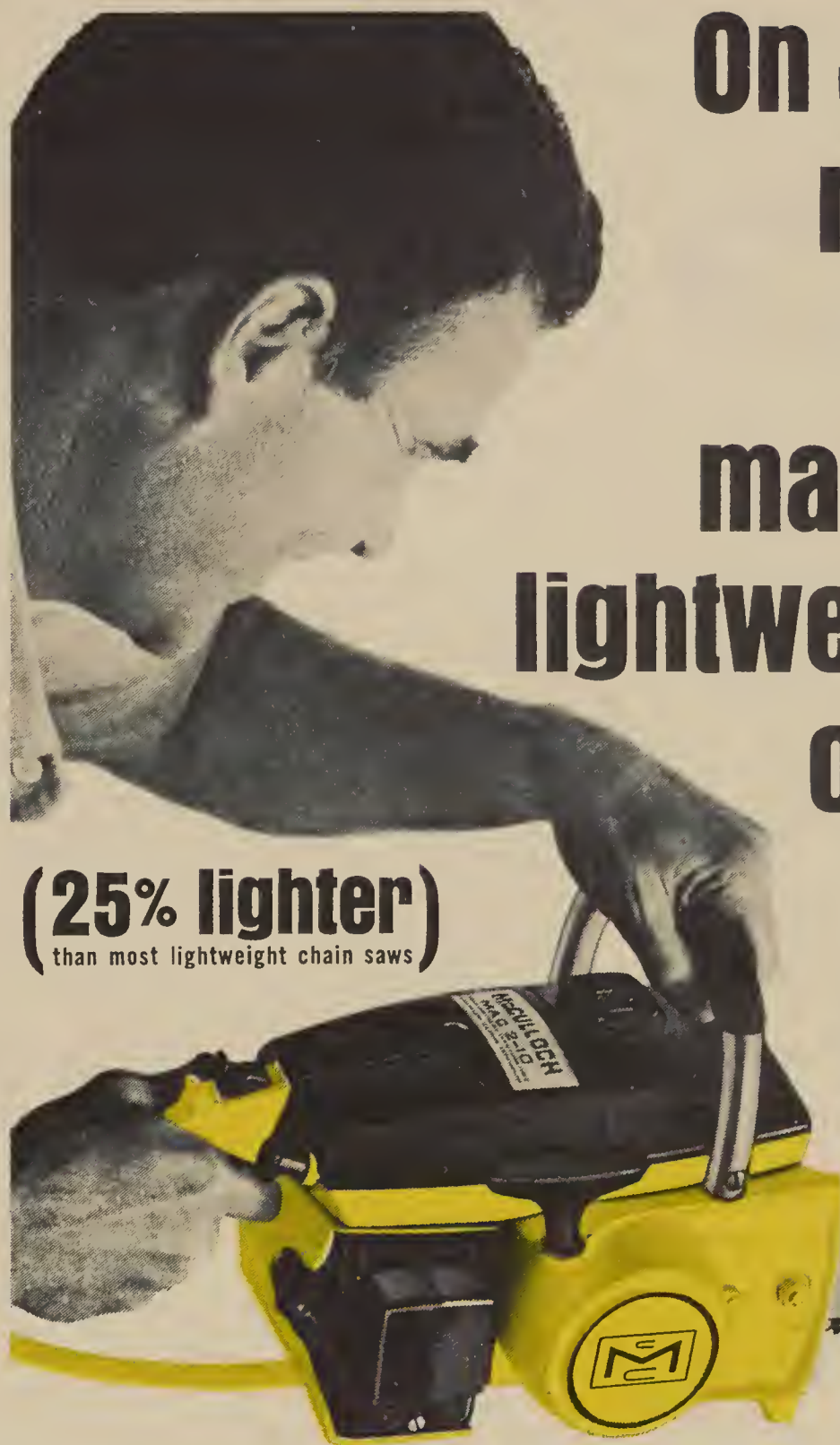
KNEE PROTECTION

Lewis Bissell, Forestry Specialist in the Maine Extension Service, recently sent the editor some material on a nylon-polyform knee patch for the use of woodsmen. One of the very real occupational hazards of men using chain saws is that they may accidentally hit their knees with a saw that is running at high speed.

Safety knee patches of nylon are a relatively new item of safety equipment, but experience in Canada as well as in Maine has shown a marked reduction of accidents through the use of these patches. There is quite a list of men able to walk normally because they were wearing them at the time a slashing saw bounced off their knees.

For more information, write to Mr. Bissell at the University of Maine in Orono.

American Agriculturist, September, 1965



(25% lighter)
than most lightweight chain saws

On July 1, 1965 the new McCulloch MAC-10 series made every other lightweight chain saw overweight and out-of-date

MAC 1-10: The world's lightest direct drive chain saw. 10½ lbs.*

MAC 2-10: World's lightest automatic oiling chain saw. 10¾ lbs.*

Easiest Operating Lightweights Ever: The new MAC-10 Series saws are up to 25% lighter than most so-called lightweights, yet have every feature you could ask for.

Automatic Oiling: MAC 2-10 features automatic chain oiling for longer bar and chain life *plus* a separate manual system, so you can supply extra oil for the toughest cutting conditions.

Famous McCulloch Dependability: The MAC-10 Series saws are new from grip to tip. New concepts reduce parts by 30%, yet the MAC-10's retain all the performance, features and dependability you expect in a McCulloch.

Extended Working Life: Unlike some other lightweights, the MAC-10's cylinders can be rebored and fitted with new pistons for years of extra life. The MAC-10 Series has ball and needle bearings throughout, and every working part on the MAC-10's is cast and machined from the finest steels and alloys available.

Longer Running Time: With oversize oil and fuel tanks standard on the MAC-10's, you can cut as long as most full sized saws. And with McCulloch's new single-jet carburetion system and new MAC-10 Series engine design, fuel consumption is cut as much as 12%. Precision engine tolerances allow the use of McCulloch oil at a 40:1 gas/oil mix for even more economy and virtually smoke-free operation.

Power For Fast Cutting: McCulloch's advanced engineering means more usable power. When you make the first cut, you'll know that lightweight doesn't mean under-powered.

Fast, Reliable Starting: The MAC-10's combination of primer and exclusive idle governor means you get fast, sure starts. For added convenience, MAC-10's feature right-hand starting.

Runs In Any Position: No matter what position you cut in, you'll get full power from a MAC-10 Series saw. The idle governor allows the MAC-10's to idle without stalling or sputtering.

Pick The One That's Right For You!

MAC 1-10: Complete with specially designed bar and chain. Available with 12", 16", 20" and 24" McCulloch guide bars and new long wearing chain for all general purpose cutting jobs.

MAC 2-10: With the same equipment and options as MAC 1-10, plus automatic chain oiling with separate manual system, special spark arrestor and muffler combination, plasticized handle frame for non-slip operation, and rubber insert on the pistol grip. The MAC 2-10 is ideal for the man who wants a lightweight with everything as standard equipment. See your McCulloch dealer now for a demonstration of the new MAC-10 Series. You'll find him in the Yellow Pages, or for a full-color catalog on the MAC-10's and 9 other new McCullochs, write McCulloch Corp., Dept. AA, 6101 W. Century Boulevard, Los Angeles, Calif. 90045.

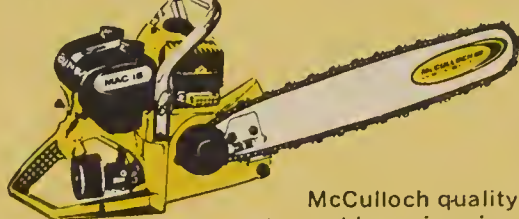
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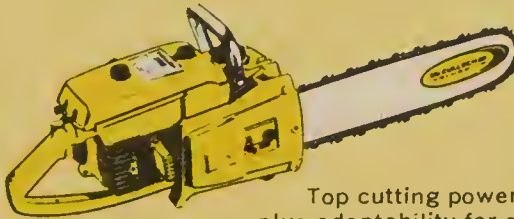
Along with the Mac 1-10 and Mac 2-10, these dependable, hard-working McCullochs give you top value for all general purpose cutting: on the farm, in industry, and right at home. Prices start as low as \$124.95.*

MAC 15



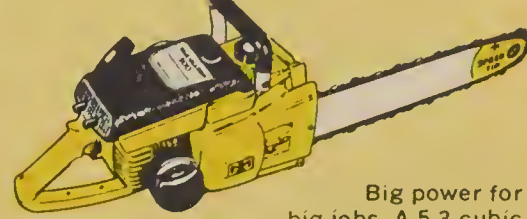
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Gayway Farm Notes

by HAROLD HAWLEY

FEAST OR FAMINE?

Everyone seems to be experting on whether or not world population is going to increase so rapidly as to outrun the total productive resources of the world. It is perhaps as difficult to foresee the future now as it has ever been.

It may, therefore, be a comfort to remember that economists and population experts have been worrying about this problem for a long, long time. Malthus (1798) concluded that the growth of population would outrun food supplies and be checked by poverty or some other causes of suffering (disease, famine, war, infanticide) unless it were checked by voluntary restraint. He, therefore, came up with the gloomy picture that population increases contributed to poverty and suffering.

Now that we are in the midst of world-wide population explosion, we should see if his conclusions were correct. If they were, the results he foresaw were greatly delayed because of the development of new lands in many places of the world. Perhaps this is about over. So now we may ask, are we going to see population catch up to food supply — and then have war, disease, and famine cut our numbers back to size? To a degree, this happens all the time in India, China, and probably in some other areas. But inasmuch as the more critical conditions get publicized and foods move there free or essentially free to relieve the situation, the influences of population pressure on resources are at least modified.

Could Be Increased

The little that I've seen of the rest of the world is scant basis for any conclusion, but I have no hesitation in saying that in much of Latin and South America, given the proper economic climate and incentive and a little Yankee ingenuity, production could be increased five, ten, maybe even twenty times. Many think African production likewise has not much more than begun. Nearer home, has anyone ever tried to guess how much we could produce in this country given freedom from controls and high prices?

Then, if you wanted to stretch production some more, assume society to be willing to subsidize conversion of salt water to fresh, and imagine what widespread use of irrigation could mean to overall production. If food was still short, think how many more mouths could be fed by the simple expedient of changing our diet from protein food we so dearly love to less-appealing but equally

life-sustaining cereals and vegetables.

To this we should add the almost unbelievable quantity of new research information becoming available which when put with the present technology and know-how, suggests further tremendous increases in agricultural production per worker and per acre. This sounds to me like enough food for a lot more people for a long time yet.

Now let's look at new sources. Certainly we've not even begun to use the resources of the sea. I'm even guessing that if our protein has to come from there, it will be made palatable and delicious . . . even if not necessarily like a good steak. And what of the atmosphere? Who knows but that space explorations may set men's minds at ease by uncovering whole new sources of life or life-sustaining substances.

Maybe I'm only arriving at my usual optimistic belief that intelligent men and women can successfully subdue their environment. It may even be that Malthus' last point may come into sharp focus and have an ultimate bearing on the outcome of this whole problem. He mentions voluntary restraint as a vital factor in population control. Certainly as knowledge spreads this may be the ultimate weapon man can use to assure a proper balance between total appetite and food supplies.

IT'S BREAKING OUT ALL OVER

I've always liked the expression which says "spring is breaking out all over." The cars which go whizzing by carrying people to vacation destinations make me think of it. Seeing them go by makes one say automatically that fun is breaking out all over the place.

We have to do quite a lot of travel on a state road going to and from some of the land we work, and it's pure pleasure to note the license plates, to marvel at the amount of luggage and duffel some cars are asked to carry, and most of all to note the little adaptations for traveling some families come up with.

The blue ribbon for something really good goes to an Illinois family with several little ones in the back of their station wagon. I shudder when I see the back window open and small fry crawling around back there. "We lose so many kids that way." Well, this couple wanted the window open for air and still wanted their kids safe, so they had rigged up a

(Continued on next page)



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screen across the back.

Real organization ability earns the red ribbon. A compact with 2 adults, 3 kids, bag and baggage — plus 3 bicycles! That rig was really loaded, yet everything was riding nicely and everyone looked happy.

We wouldn't want to forget the family who were having their travel fun with a converted bus. They could cook for and sleep the family — all six of them — and travel pretty comfortably in the old bus.

The campers that ride piggy-back on a pick-up truck look like a pretty nice deal for those who get away for a long trip. I kind of raised my mental eyebrows, though, at the fellow traveling alone in one and pulling a camping trailer besides.

How about those boats following along so smoothly behind the family car? It's sure a nice deal to be able to take a big source of family fun right along on the vacation. Some of these boats look big enough and luxurious enough to wag the car as well as the family budget. The most cumbersome-appearing thing I've seen was a houseboat, overwidth, being towed along by a beat-up-looking car already overloaded with kids and luggage. Oh, for the faith it must have taken to start out from Ohio with that rig!

Maybe these travel sights are more noticeable as the time approaches for us to hit the open road. Every now and then I hear myself saying "There but for another 50 acres of combining go I!" Having taken no vacation last year, we are looking forward more than ever to turning our backs on a lot of work and taking off for a little fun and battery charging.

Given unlimited time, my notion of an ideal trip would be to head for some mountain scenery, but to mosey along secondary roads, stopping a couple of times a day to talk with farmers who have a good operation. To do this all across the country would be most enlightening and enjoyable . . . but we never have that much time. However, the highlights of our former trips have been little conversations with good farm people wherever we've gone. They're the most!

NOW, MR. PRESIDENT.

With all the effort that has been made to make sure that all people have the opportunity to vote, it's somewhat contradictory and quite disillusioning to find that I've been disenfranchised . . . and by the very Administration which is doing so much for some others. It seems double bad to lose something that you have had . . . and that is just what has happened to those of us who grow wheat.

You will recall that a majority of farmers noted "no" in the wheat referendum in 1963 in spite of all the money and effort the USDA put into their attempt to get a "yes" vote. The Secretary of Agriculture apparently wants no more embarrassment of this kind; no provision is made for a referen-

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dum in proposed wheat legislation. It's obvious that things will go smoother if the Secretary can propose legislation and get Congress to pass it if he doesn't have to go to the farmers for an O.K. on it. It just might happen again that the people who have to live with the program might not like it as well as the man who administers it.

From Mr. Freeman's point of view, it makes sense to by-pass the referendum. From my point of view, it seems like quite a contradiction for the Administration to deny the right to vote to some while taking bows for making voting rights available to others. A little consistency on this voting rights thing would be nice, if possible, Mr. President.

LOOK MA, NO HANDS!

We've about reached the stage where to do some jobs which used to require a lot of heavy back work has become entirely a job of running a machine. A few of us got to talking about the good old days . . . to which none of us wants to return . . . and how we did things then.

We found it pleasant to recall silo filling — with the coming of the bundle loader — and the advent of a silage cutter and a tractor both large enough so that even the most eager beaver couldn't plug them as long as he fed evenly. All of us bragged a little about "lapping the bundles to the bands," but had to

admit we weren't the least bit interested in that kind of exercise any more. Then someone asked if we tried sunflowers in the corn in our area. We had — and about once was enough!

I'm willing to bet a plugged nickel that all the marvelous new machines and gadgets on display at the Fair — oops, Exposition — would be deserted if someone put on a step-by-step display of the equipment used in almost any single farm operation one might name. What a fascinating thing to see a side by side line-up of, say, haying equipment from scythe to mower and dump rake, etc., right up through the latest in windrowers, choppers, bale throwers, and the like.



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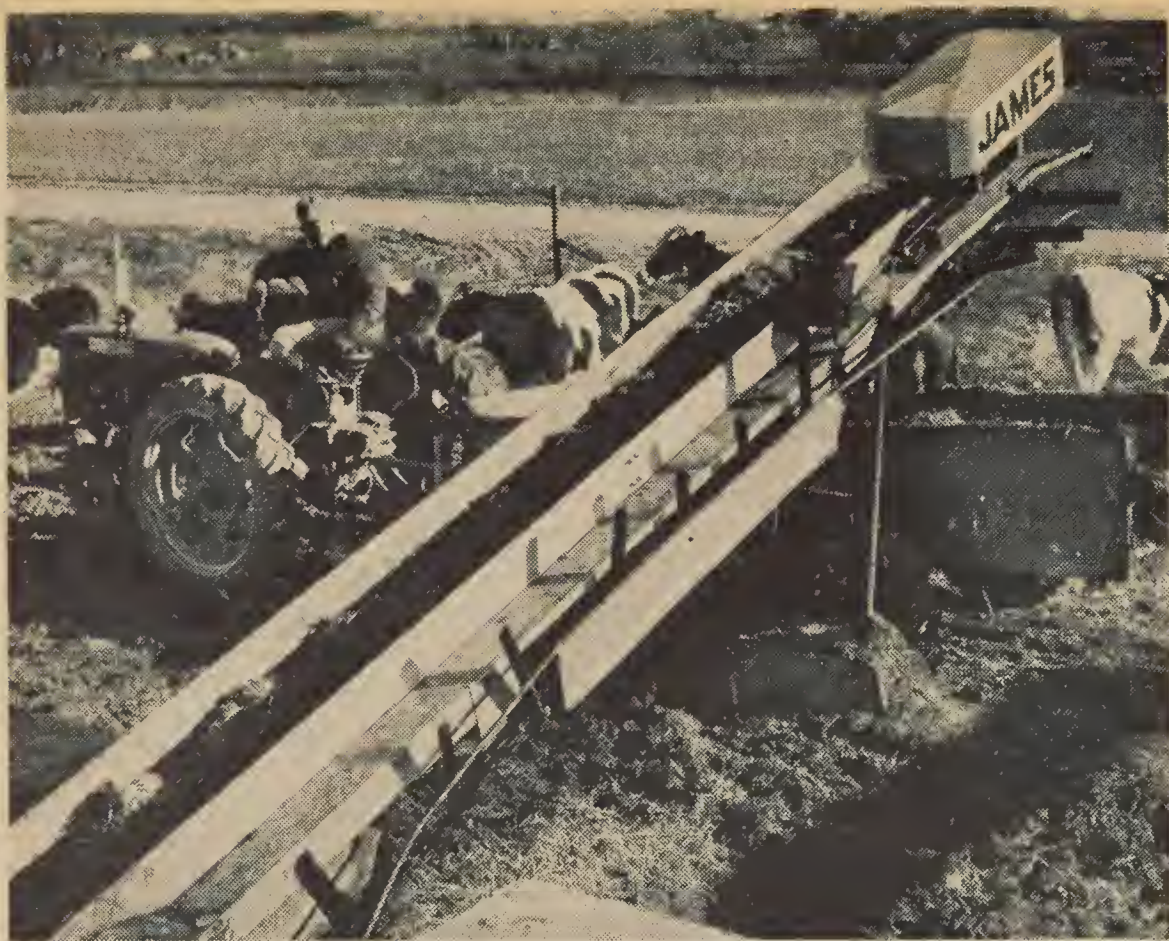
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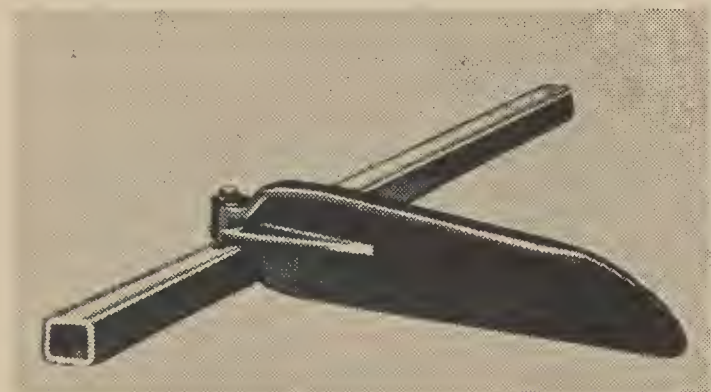


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Personal Farm Experience



Herman Weingart with some of his "working force," . . . and some of his nice Guernseys in the background.

TWO MEN

My Dad and I have gradually increased our herd of Guernseys from 30 in 1956 to 50 now, and we hope to 65 to 70 by fall. We have done this without increasing our labor force (the two of us!)

First, we are growing more corn, and increasing our silo capacity. This year corn acreage is up 10 percent from last year, and 3 times the acreage of four years ago. We have brought greenchop to the cows for three years, but are working toward 100 percent silage. In addition to a trench, we have two tower silos, and plan a third. One has an unloader, and we'll get a second, perhaps this fall.

We have 25 acres that's too wet for corn, which has been seeded to Reed's canary grass. We are making hay from it this year, but next year we plan to put it in the silo. Incidentally, we made the mistake of putting on 90 pounds of nitrogen per acre, and as a result it was tough to cut!

Better roughage has helped to increase production per cow, and the second reason was the adoption of "lead feeding." We aren't feeding any more grain, but more of it goes to cows in the early stage of lactation and less later. This helped give us an increase of 1,000 pounds of milk per cow in 1964 over 1963.

Looking ahead, corn silage will be our main roughage; but we still like to feed a little hay, maybe 4 pounds a day per cow. We buy all our concentrates (pellets since 1963) which are put into a bulk bin. We have a bulk tank and plan for a milking parlor. The eventual size of the herd will be governed by the number of cows that two men, using new developments and methods, can care for. — *Herman Weingart, Lebanon, Connecticut*

EGG MARKET

We have a family-sized chicken farm with about 1,800 birds in cages, two to a cage. I started in the chicken business ten years ago, and went to cages five years ago.

This is a summer vacation area,

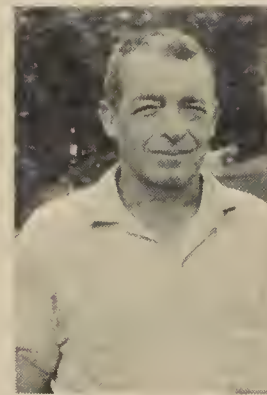
which helps our sales. We sell about 600 dozen a week at the farm, deliver 20 cases to local stores, and sell 135 to 150 dozen a week on a door-to-door route. We bought the route from Percy Holmes; it has been going steadily for 32 years. Housewives say they used to set the clock by his appearance.

Manure disposal is a problem. We have 25 acres of hay, and have put a lot of manure on it. However, we cut the hay and let it lie . . . would be glad to have someone draw it away.

Marketing is extremely important. I wish I could sell all our eggs retail, but one thing is sure, if I had to depend entirely on a wholesale outlet I would be out of business. — *James S. Foster, Sheffield, Massachusetts*

FREE STALLS

The roughage for our herd of 90 is corn silage and haylage put up in a big tower silo. When we are chopping hay or corn we feed some to the cows, and then begin feeding from the silo right away. As a result, we have almost no spoilage.



ROBERT CHAPIN

We like to chop haylage somewhere between 40 and 60 percent moisture. You get so you can judge fairly accurately, but occasionally the DHIA man makes a moisture test for us.

Twelve years ago we built a small pen stable to try out the idea. On January 1, 1965, the herd went into free stalls, with a 75,000-gallon pit for liquid manure. One big advantage of free stalls is the saving on bedding. It used to cost us \$2500 a year; now it's next to nothing.

We are using the old pole barn for young stock and dry cows, and the old stanchion barn for machinery and hay for the young stock.

We have been thinking some of
(Continued on next page)

feeding wet shelled corn, but will need to build storage for it.

We plan to split the herd in two according to production for feeding efficiency. I think there might be some advantages to dividing into four groups... large cattle that are high producers, small cows that are high producers, big animals that are low producers, and small low producers. But I don't see how it can be done under the present setup.

We have a herringbone milking parlor and two men milk a cow a minute. I feel sure that fast milking keeps our mastitis problem small. — *Robert Chapin, Sheffield, Massachusetts*

LIKES CORN

Corn is a wonderful crop. Dairy farmers are coming to appreciate its good qualities, but we have yet to take advantage of all its potential. In my opinion, within ten



KAYE ANDRUS

years 50 percent of the milk produced in Connecticut will come from corn silage.

My first requirement for a corn variety is that it must stand up. I plant three varieties — about one-quarter total acreage to an early variety, about a half to a mid-season, and one-quarter to a late variety. This is to spread the harvest season.

Silage is stored in a bunk, and I like to have enough to feed the year round. Last year (1964) was dry, and we didn't make it. We can start feeding green chopped corn by August 1, but the cows always drop in production and butterfat test. We put up around 2,000 tons, and corn silage is almost 100 percent of our roughage.

I believe that the loss from freezing before harvest has been exaggerated. I like to begin harvest right after Labor Day, and finish three weeks to a month later. However, I have seen corn put in the silo on Armistice Day and the cows ate it with relish, and produced well. It may even be that frosting removes undesirable moisture, resulting in better silage.

Incidentally, the developments that have most increased the use of corn silage include better varieties, chemicals to kill weeds and prevent rotting of early-planted seed, and complete mechanization in growing the crop. — *Kaye Andrus, Mansfield Center, Connecticut*

TURNED THEM OUT

In 1964 we brought all the feed to the cows, but last spring we had more hay than we could handle early in the season, so we turned the cows into a good piece of alfalfa.

They get a load of green-chopped hay in a bunk feeder every day and corn silage in the barn. We are getting a little better production than a year ago, but

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we have been feeding grain pellets and that may be the reason.

As yet I don't know whether or not I will pasture in 1966. It probably will depend on the weather.

We milk about 80 cows. We have a capacity for 330 tons of silage in tower silo and a trench that holds 900 tons.

I am considering a trial next winter of a complete commercial feed that combines roughage and concentrate. — *John Eddy, Rome, N.Y.*

EQUIPMENT COST

Cornell tells us, as a result of figures we keep, that our equipment cost per cow is below average. We did not make definite

plans to keep the figures low, but we are glad they are because cost of equipment is a big item.

After studying the figures I believe it is due to two things: first, we have a sizable dairy... 92 cows... so the cost of equipment is spread over a relatively large number. Second, we have been a little slow to buy some equipment we are tempted to get.

Equipment is essential to keep labor costs low, and we have the following things: bulk tank with dumping station; gutter cleaner; a silo unloader; field chopper for grass and corn; a hay baler; a weed sprayer; and, of course, the usual tillage implements including four tractors. We also have a purchased bale elevator and a home-

made conveyor to dump hay in the mow.

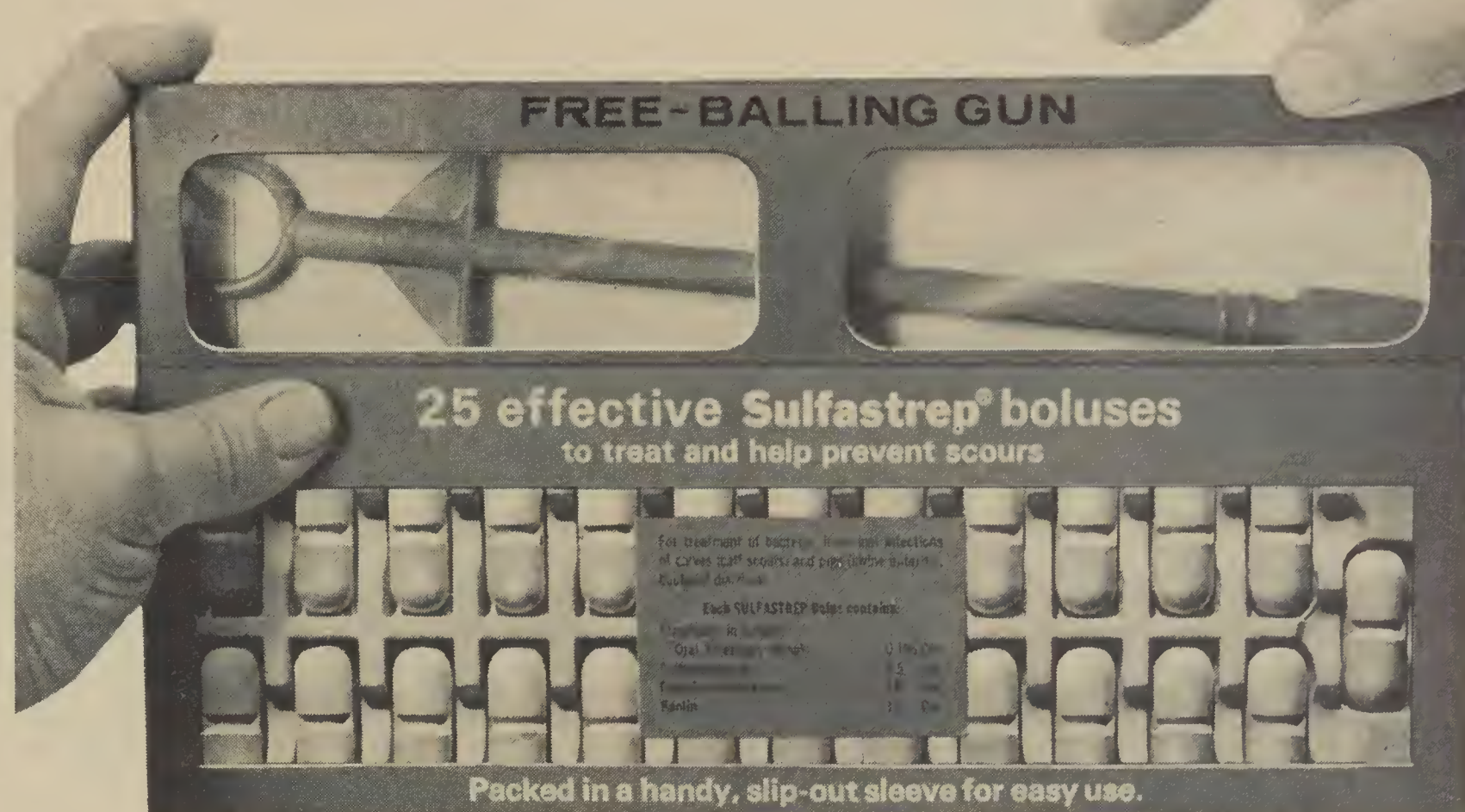
Some added tools we could use include: a bale thrower; self-unloading wagons; a mow drier; and a bunk feeder.

We also keep equipment costs moderate by keeping tools repaired and housed so they last a long time. — *Robert Boshart, Turin, N.Y.*

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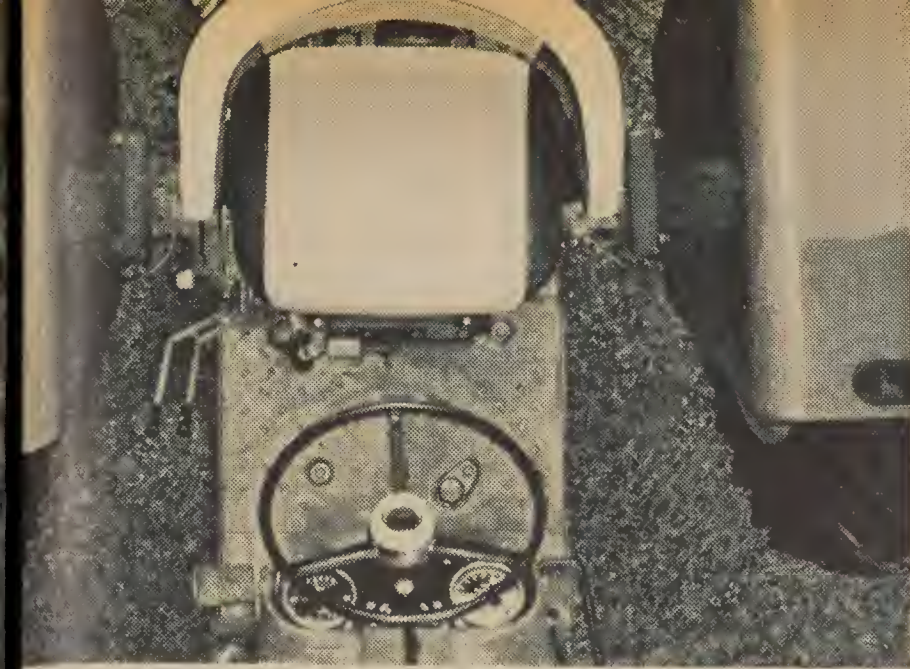
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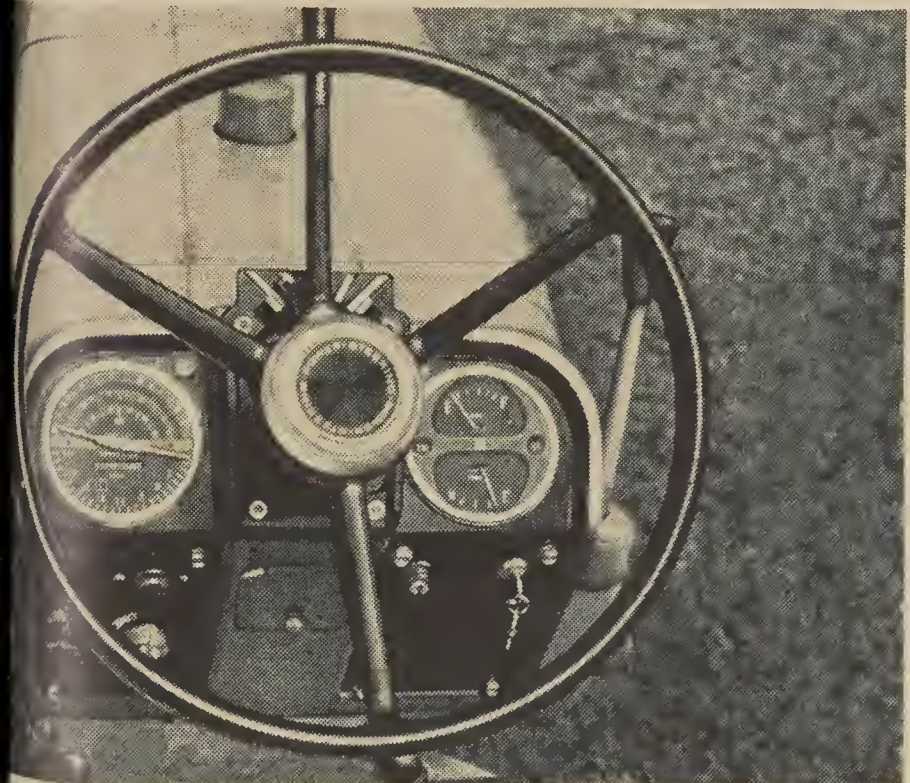
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656

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*Manufacturer's estimate



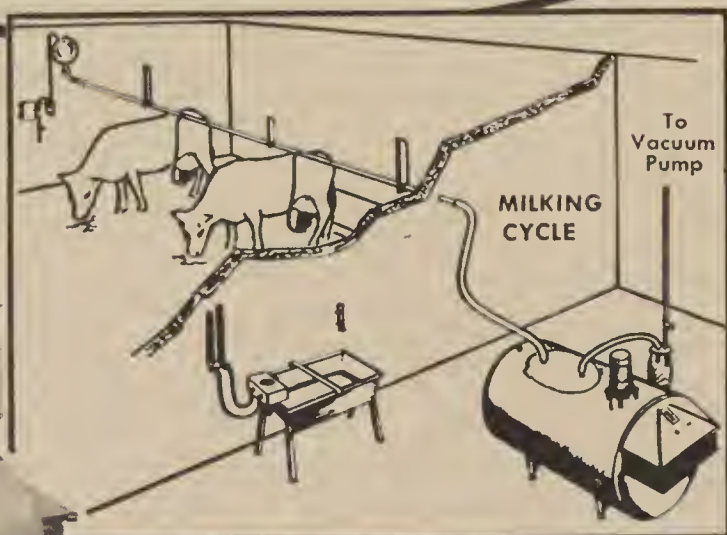
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INSULATION for the BIRDS

by Charles Ostrander*



USUALLY we think of insulation and ventilation together. But ventilation is a subject in itself, so let's just look now at some of the weaknesses in insulation installations.

A great deal of money has been spent on insulation without an adequate job being done. Most trouble is due to incorrect information, improper materials and installations, and lack of vapor seals. There is nothing wrong with the principle of insulation (it is highly recommended)... but the job must be done right if good results are to be obtained. Insulation is absolutely necessary if ventilation is to work satisfactorily.

Do The Job Right

A good insulation job is not difficult, nor need it be expensive. Let's look at some of the mistakes made:

Many poultrymen have purchased one of the more costly blanket-type insulation materials that is covered with aluminum foil. The aluminum foil in itself is a vapor seal, but too often the seal is punctured or cracked during installation. In fact, it's almost impossible to install this without puncturing it! The result is that vapor leaks into the insulation and condenses. Insulating qualities are lost, the material becomes heavy with moisture, and starts pulling away from its fastenings.

The trouble? People think... and are often told... that the aluminum coating is a vapor seal. What they don't realize and are not told is that if this is punctured, vapors get in at the ends. This type of insulation works fine if covered with polyethylene or other vapor-proof materials. Polyethylene can be purchased in widths of 20 feet or more.

But why buy the coated insulation if you cover it? You might better purchase a cheaper material covered with kraft paper; then literally wrap the room with polyethylene. Go around the room from floor to ceiling, with a good lap at the ceiling; then cover the ceiling, lapping down the sidewall. If this is then covered with plywood, masonite, asbestos board, or other hard-surfaced material,

no vapor leaks should occur and the job should prove satisfactory.

Some people scrimp on the amount of insulation used. This is false economy. Insulation material need not be expensive, but here's where one should go overboard a little rather than be shy. Insulation is a method of preventing the transfer of heat or cold; it is commonly referred to as a resistance or "R" factor. The higher the "R" factor, the greater the insulating value. A few materials carry a "U" or "K" designation... the lower this designation, the greater the insulation value!

Most commercial materials are rated by "R" value. Often the "R" value is given per inch of thickness... but sometimes this is given for the particular material quoted. You must know which is the case to know what and how much to purchase. When you know the "R" value required for a given purpose, you should select the material and the amount of it required to provide this at the least cost for permanent results.

Poultry houses for layers in New York State should have an "R" factor in the range of 8 to 10 in the sidewalls and 10 to 15 in the ceiling. This is because heat rises and tends to be lost through the ceiling more than through the walls. To obtain these results usually requires 2 to 3 inches of fiberglass insulation or its equivalent in the sidewalls, and 3 to 4 inches on the ceiling.

However, this is only part of the story. If the insulation material becomes wet it may lose its insulating value; some materials do not absorb moisture... but, as mentioned previously, some do. Practically all rooms contain some moisture in the form of vapor. The air pressure in the room forces vapor into the insulation if there is even a tiny hole. This is increased tremendously when pressure ventilation is used; in such a situation it is doubly important that there be no vapor leaks.

Many Choices

There are many rigid-type insulation materials on the market. Some of the foam plastic materials have very good insulating qualities, and some are vapor proof. These are very good, but may tend to be somewhat costly. However, the cost of installation may be less, and offset the cost of the materials.

Many of the soft-type insulation boards don't have very high "R" factors, thereby requiring several thicknesses to do the job adequately.

* Poultry Department, Cornell University

(Continued on page 31)

EGG WEIGHT HASSLE



THE END to the long and bitter controversy over egg weights may be in sight for the nation's egg industry. The NEPPCO Egg Marketing Committee has recommended that the industry adopt the weight and size designations contained in the official United States Standards for Consumer Grades and Weight Classes for Shell Eggs, but with a reasonable tolerance.

The U. S. Consumer Grade Standards recommendations now require a minimum net weight of 30 ounces for Jumbos, 27 for Extra Large, 24 for Large, 21 for Medium, 18 for Small and 15 for Peewee. The present standard allows individual eggs in a dozen to weigh up to one-twelfth ounce less, provided the dozen tips the scales at the required minimum. Eight eggs in a dozen could weigh 1-11/12 ounces if the other four weighed at least 2-2/12 ounces.

The NEPPCO committee believes this is too great a tolerance and allows for a variation in size that some consumers could visually detect. What's more, modern grading equipment can achieve a greater degree of uniformity.

Because of these facts the committee has recommended a tolerance of not more than 10 percent by count of individual eggs in any one sample of a 30-dozen case or more, and not more than two eggs in any one-dozen carton, to the next lower ounce (at the rate per dozen) in each size or weight class.

For example, in a case of large eggs not more than 36 eggs would be permitted to weigh less than 1-11/12 ounces each. A dozen carton of medium eggs could have not more than two eggs weighing less than 1-2/3 ounces.

USDA Agrees

In view of modern packaging procedures and the requirements of retailers, USDA officials agree that the present tolerance in the official United States standards are too liberal, but have argued that NEPPCO's suggested tolerance would be more than present equipment could achieve. USDA has undertaken a special research project to determine the exact extent of machine error on all the various

types of egg grading equipment currently in use.

Dr. A. W. Jasper, assistant commodity director of the American Farm Bureau, has indicated he would support the NEPPCO recommendation once the tolerance is established to compensate for machine error. Jasper has advocated a compromise of 23-1/2 ounces per dozen on large eggs as an industry standard.

Once tolerance has been established, the next job will be an attempt to get the various states to amend their egg laws to conform to the USDA weights and tolerances. This will be a big job. New York, which has a 24-ounce law with no tolerance, holds the key.

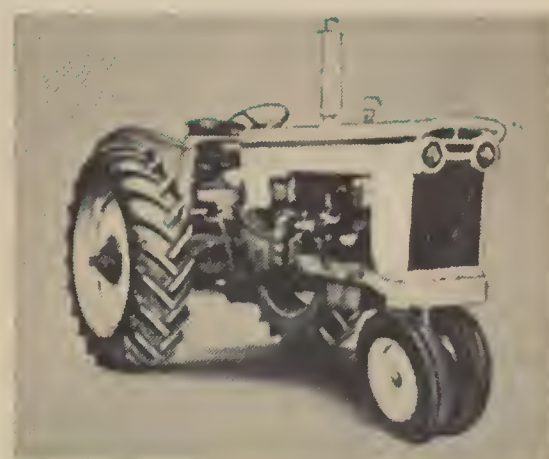
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Insulation

(Continued from page 30)

ly. Some are so soft the chickens will pick them, and in some instances have eaten holes through the building!

Many poultrymen do not insulate overhead doors or partitions separating cold rooms from the pens. Uninsulated doors cause much condensation, may deteriorate rapidly, and may upset air flow patterns. Partitions that are not insulated may cause condensation and also upset air flow patterns. These walls should have air intakes to allow air flow over them.

Nix On Rats

Rodents should be kept out of insulating materials. Contrary to common belief, rats and mice will live in fiberglass insulation. Probably a loose fill insulation is about the best over a ceiling. Rodents cannot burrow and live in this. On the other hand, loose fill in the sidewalls tends to settle, which is not desirable.

Unless you have a great deal of knowledge about insulation, vapor barriers and their installation, you should seek competent help before attempting an insulating job. Contact your county agricultural agent, or the agricultural engineering department of your state college for help. These people have information and data that can help you, save you money, and prevent horrible failures.

American Agriculturist, September, 1965



FEDERAL LAND BANK AND
PRODUCTION CREDIT
ASSOCIATIONS

There have been many reports of chickens 15 to 20 years old, and a few years ago at the World's Poultry Congress an exhibit was displayed of birds of very old age, and one of these was claimed to have been 21 years old. However, we normally do not recommend keeping chickens this long as usually after the first year, and very definitely after the second year, the birds usually do not lay

This is a management problem with no answer that will fit every

There is no really satisfactory way of storing poultry manure as it is collected from the poultry house without it heating. If this

If you plan to store this material for a year or more, the only thing you could do would be to run it through a compost by turning it regularly, or dry it to a point where it would then store. I think you will find that 20 percent moisture material will tend to mold and heat and possibly cause fire. You could probably air-dry this by thin spreading it in your area during the warm periods of the year, and pile it during the cold periods and let it go through a sweat until summer and then spread it again or complete the compost by turning. — C. E. Ostrander, *Poultry Husbandry Dept., Cornell University.*

(Continued on next page)



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nest. — *W. Robert Eadie, Cornell University*

Editor's Note: The U. S. Department of Interior, Fish and Wildlife Service, lists these sources of chemical coatings to prevent roosting:

Aegis Laboratories, 6817 S. Stony Island Ave., Chicago 49, Illinois; Bird-Free Company, Box W, Brookline 46, Massachusetts; Bird-Rid Laboratories, 4817-4819 Cottage Grove Ave., Chicago 15, Illinois; Burr Chemical Company, 3329 Auburn Street, Rockford, Illinois; Joseph Gabos, S. Delsea Drive, R.D., Vineland, New Jersey; International Pest Controls, 635 Seventh Ave., Marion, Iowa; National Bird Control Laboratory, 5315 West Touhy Ave., Skokie, Illinois; Pest Control Chemicals Company, 324 Broadway, Buffalo, New York; Sennewald Drug Company, 2721 Chouteau Ave., St. Louis 3, Missouri; Tanglefoot Company, 314 Straight Ave., N.W., Grand Rapids, Michigan.

Are black walnut roots toxic to trees, berries, etc.? I know they are toxic to vegetables.

As you have indicated, black walnut roots appear to be toxic to vegetables and sometimes to certain other crops such as strawberries. I am not sure about other adjacent trees since it is difficult to determine whether or not the lack of growth around the walnut trees sometimes is due to this toxicity or to shading. However, I have often seen shrubs and other miscellaneous species of woody crops growing right under and near black walnuts. — *Philip A. Minges, Cornell University*

Where do you lose the least in value of corn silage, by harvesting early to avoid frost or waiting until a frost and then filling at once?

If you are geared to put corn in the silo rapidly, you are likely to gain by waiting until frost if the corn is still immature. You will lose some leaves, but leaves make up only 10 to 12 percent of the total dry weight, while every day corn continues to grow adds considerably to its value.

If you can't harvest rapidly, though, better plan to get it into the silo before frost.

Can the balls that form on potato tops be saved and used for seed potatoes?

The balls to which you refer are the seed balls produced by pollination of the potato flower. They contain the true seed of the potato plant. The seed balls you possess were, in all probability, produced as a result of self-pollination, i.e., the flowers were pollinated with their own pollen. Each seed produced in the seed ball is potentially a new variety.

The tuber yield produced by these seeds will vary and be characteristic of each plant. This variation will extend from very poor to about the yielding ability of the variety on which the seed ball was originally produced. For this reason, it would not be advisable to substitute these seeds for seed tubers if a good crop of potatoes is desired.

In general the manner in which

new varieties are produced is as follows: controlled pollinations are made between varieties each possessing different desirable characteristics — seed balls produced; seed collected; seedlings grown — from seedling population individuals are selected for further test trials using henceforth the seed tubers to reproduce the plant.

Seed is obtained from the seed balls as follows: a cross-cut is made in the berry; the berry, held under water in a glass, is firmly rolled between thumb and forefinger until all seeds have been squeezed into the glass; the excess berry pulp is discarded; seeds will settle to bottom of glass; decant; replenish water and decant; continue washing process until gela-

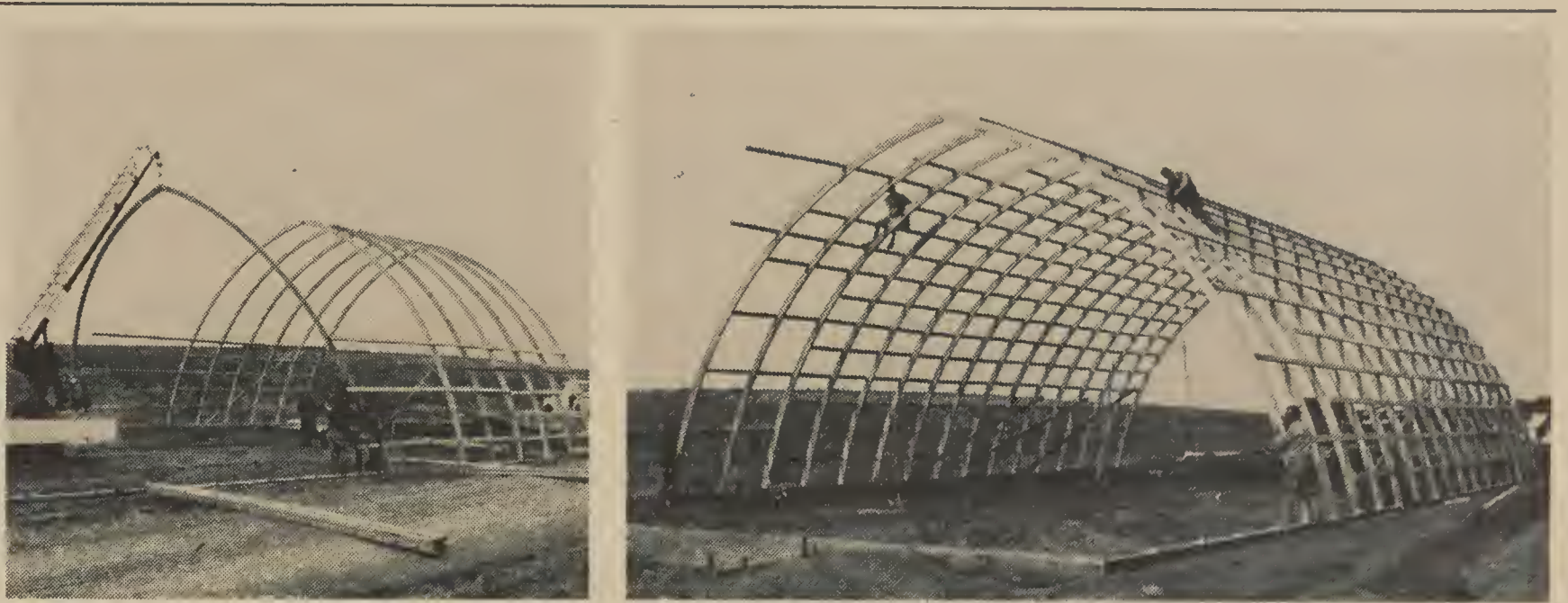
tinous matrix from the seed ball has been eliminated; spread seeds on paper and allow to dry thoroughly. Seeds thus produced will not grow immediately but require a rest period of six months, at which time they should, if viable seeds were produced, germinate to the extent of 80 to 95 percent.

Potato seeds and seedlings are handled much like flower or vegetable seeds or seedlings. When seedlings are 1 to 1½ inches tall (about 3 weeks after seed sowing) they may be transplanted to flats. When 6 to 8 inches in height, they are transplanted to the field or garden. This should be done as soon after the frost-free date as possible.

Seedling plants are grown all

summer and given the same care . . . cultivating, spraying or dusting . . . as with regular potato plants. In the fall of the year, each seedling hill is dug individually and selections for further growth are made on the basis of crop size, tuber shape, freedom from tuber defects, shallow eyes, flesh color, etc.

Many of the good old American potato varieties were developed using the method just described. An unusually large number of varieties were developed in the "old days" along the Vermont-New York border. In this list are the Pride of Hebron, Green Mountain, etc. — *Prof. L. C. Peterson, Dept. of Plant Pathology, Cornell University*



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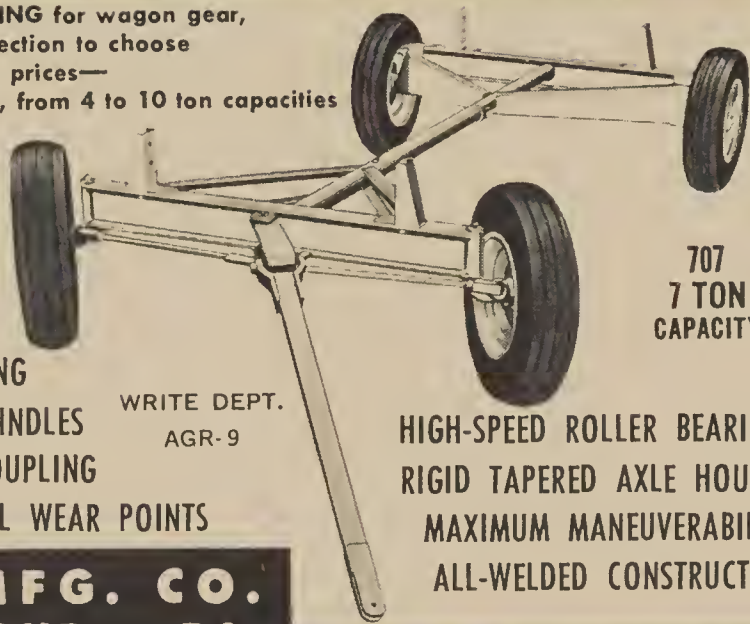
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20-9

NEED MORE SILO ROOM?

Deciding How Is An Important Management Decision

by Hugh Cosline

CORN ACREAGE in the Northeast is increasing and yields per acre are on the upgrade. Colleges are recommending more corn to replace scarce hay, and dairymen are showing more appreciation of the good qualities of corn.

More corn inevitably means more silos . . . and more cribs, too. Certainly many a dairyman is faced with the problem of deciding on one of several ways of providing more storage space for corn silage. Among the questions to be answered are these:

1. What kind of a silo shall I build?
2. How big a silo do I need?
3. Where shall I put it?
4. What kind of a feeding program should I plan?

Let's take the last question first. These days it isn't a simple question of deciding what silo to buy. Any silo . . . in fact, all feed storage . . . should be an integral part of the system for feeding the dairy.

So here are some questions in that department: Should you change your present method of harvesting and storing hay? Should it be baling, chopping, haylage, or grass silage, or a combination? Should you adopt automatic feeding of roughage?

Will you buy concentrates in bulk, or will you try to raise more corn for grain and grind it on the farm? Will you store high-moisture corn in a silo?

Undoubtedly, automatic feeding is the coming thing. Therefore, the relationship of the location of storage places for grain, hay and silage are important. This raises the question of bunk feeding versus manger feeding, or, in the case of concentrates, feeding in the milking parlor.

A considerable number of farmers are building one silo away from the barns specifically for summer feeding. A practice which

seems to be going out is green-chopping for summer forage. As I analyze it, it's more economical to store silage for summer feeding.

What Kind?

The choice of types and materials for silos is wide, starting with a pile of corn silage on the ground with a plastic cover. No doubt that represents the lowest investment, but also the highest waste. In an area where deep snow is common, it is far from the handiest way to store and feed silage.

Next comes the pit or bunker silo. I see fewer and fewer "holes in the ground." Pits are usually concrete, and bunkers have concrete floors. Also, I see fewer pits or bunkers where the cows eat their way into silage, and where a movable fence or electric fence is used to minimize waste. That method also is wasteful of silage.

However, a pit does lend itself to mechanical feeding through use of a tractor and scoop which dumps the silage into a bunk!

A considerable number of dairymen point out that a pit or bunker provides storage at a reasonable cost while doing away with blowing the crop into a silo, as well as making a silo unloader unnecessary.

Tower Silo

Then we come to the upright tower silo, be it wood, concrete, metal, or glass-lined. I haven't heard of anyone who has successfully stored haylage or high-moisture corn in a pit . . . but I wouldn't say it couldn't be done.

However, haylage, which has the advantage of spreading the harvest and increasing a cow's intake is usually stored in an airtight, glasslined silo, though a conventional silo can be used.

Another advantage of an air-

(Continued on next page)

The Song of the Lazy Farmer



My neighbor says he thinks it's best that we should work before we rest; he strongly feels that honest toil, a-working with our crops and soil, is good for us; so he is prone to work

his fingers to the bone. He surely is industrious, he's always cleaning up a muss or making one; from morn 'til night he wouldn't think that it was right to be caught napping in the shed, he keeps on working hard instead. Poor neighbor's toil is never done, he works by moon as well as sun; he's always looking 'round for more to do, he loves each task and chore.

Now I respect a working man, but I've a somewhat different plan; I do my resting first because I've always figured that it was unwise to toil and strain your back and get yourself wore out for lack of sense enough to stop and sit until you'd rested up a bit, or lay down where you need not think and let your muscles all unkink. That way I'm sure to be alive long after I am eighty-five; besides, Mirandy loves to do the chores with which I don't get through, and I sure wouldn't want to see her sad for lack of work, by gee.

American Agriculturist, September, 1965

tight glass-lined silo in addition to almost no waste is the fact that you can fill it at any time. Because the silage is unloaded from the bottom, you can continue, for example, to feed corn silage while adding grain or oat silage to the top. However, the initial cost of the silo is high, and it's up to you to decide whether the advantages outweigh the price.

Storing high-moisture ear or shelled corn makes drying and grinding unnecessary, and so far as I know it has been successfully stored only in an airtight silo.

Again I emphasize that the type and location of storage for cow feed is influenced by your feeding program, both as to kinds of feed and method of feeding. Always the big thing to keep in mind is to move feed from storage to cow with mechanical power rather than muscle.

What you are really after, isn't it, is storage at the lowest cost per ton? But that answer isn't simple. Involved is the number of years the silo will last, the cost of putting up the silage, and also the value or quality of the silage. In other words, you can afford a little more cost per ton of silage if the cows that eat it will produce more milk.

What About Size?

As I travel around the Northeast I see bigger silos. On some farms I see from 2 to 5 or more silos. That's a reflection of an increase in the average size of herds. When I talk with dairymen, many tell me they wish they had put up a bigger silo.

The answer as to size is not simple. You can start from either end. How many acres of corn can you grow? What yield do you expect, and how big a silo will it take to store it?

But you're more likely to start with your herd size (or the prospective size, if you plan to expand) then plan how long you expect to feed (winter or year round), and decide what's the maximum per cow per day. (Maybe you plan to go to corn silage as the sole roughage.) When you total up this calculation you can estimate how many acres of corn you should grow, and how much storage space you will need.

But that isn't all. Especially in the summer you need to feed at least 3 inches of silage a day from a tower silo to prevent spoilage. That requires a relationship between silo diameter and height, and the figures may show the need for more than one silo rather than a taller silo requiring more power to elevate the silage!

When you have more than one tower silo, another problem raises its head. A mechanical unloader adds to your investment cost. Some dairymen have one unloader but shovel silage from one silo with a fork . . . not really a satisfactory answer. Where two or more silos are adjoining, you can arrange to move an unloader from one silo to another. That's an angle to think about if you're putting up another silo or new ones.

Incidentally, the cost per ton of

storing silage is lower in a big silo than in a small one. But remember that you need to remove that three inches of silage a day, especially in the summer.

Some Suggestions

I realize that I have raised more questions than I have given answers, but the right answer is likely to be different for every farm. I do, however, have a few suggestions, mostly as a result of visiting farms and talking with the operators:

First. Visit as many farms as you can where some building has been done recently. Ask why new structures are located as they are,

and especially what changes would be made if the job could be done again from scratch.

Second. Ask what your college of agriculture has been finding out about farm buildings and feeding systems. Your county agricultural agent will put you in touch with the right man. Many commercial firms have been experimenting and testing. They include not only silo manufacturers but suppliers of materials, including lumber dealers, steel and aluminum suppliers, suppliers of poles for pole barns . . . and don't forget your electric power company.

Third. Make some plans to scale on paper. If you are remodeling,

or even if you are building new, consider what you would do if you should decide to expand.

Fourth. **DON'T HURRY!** Take your time. You will be making a considerable investment, one that you hope will pay for itself and leave you a profit. Mistakes will be expensive to correct, and expensive to leave because they will increase your cost of producing a hundred-weight of milk.

And when you add it all up, what you are aiming at in buying a silo . . . or any farm building or a feeding system . . . is to lower your production costs!

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Some STRAIGHT TALK about Milk Marketing from EASTERN



In the best interests of the dairy farmer, Eastern Milk Producers Cooperative has taken the leadership in resolving some of the more important milk marketing issues in the Northeast. In brief, clear "straight talk," Eastern states its position here on the following points for all to read and consider:

ELIMINATE COOPERATIVE PAYMENTS — *Eastern has taken the leadership* at recent Federal Order hearings in efforts to eliminate compulsory cooperative payments now costing producers some \$3,000,000 a year. Eastern supports adoption of a voluntary market service program (now in effect in 74 other Federal Order markets) to provide really vital services and eliminate abuses and inefficiencies in the current program.

REQUEST EMERGENCY PRICE LEGISLATION — *Eastern has taken the leadership* in drafting legislation to amend the Agricultural Marketing Agreement Act so that the Secretary of Agriculture may call emergency price relief hearings on request of 2/3 of producers in any market.

ADJUST CLASS I AND III PRICING — *Eastern has taken the leadership* in proposing a permanent Class I formula amendment to the New York Order to adjust the price in line with farmers' actual costs of production; another proposal by Eastern would increase the price of milk used in manufacturing up to the Minnesota-Wisconsin price series level.

URGE BULK TANK PRICING — *Eastern has taken the leadership* in the original adoption of farm point pricing of bulk tank milk and in subsequent enforcing of this principle in New York markets; Eastern has also filed a petition for bulk tank pricing in New England markets.

RECEIVE FULL SKIM PRICING — *Eastern has taken the leadership* in proposing to close loopholes in the N.Y. Order so that producers receive full value for skim milk used in the process of standardization, which is now legal in New Jersey.

HELP FOR PITTSBURGH AND PHILADELPHIA — *Eastern has taken the leadership* in efforts to restore orderly marketing systems in these areas beset by serious problems. Eastern has proposed terms of marketing orders and prepared testimony in support of Federal regulations and, in general, protected producer interests.

ASSURE HIGHEST PRICES FOR MEMBERS — *Eastern has taken the leadership* in assuring its members the highest possible price for their milk through Federal Order activity and negotiation of premiums, and also through accurate butterfat tests and weights. Eastern now operates two bulk tank calibration checking units, the only co-op in New York to provide this service to members.

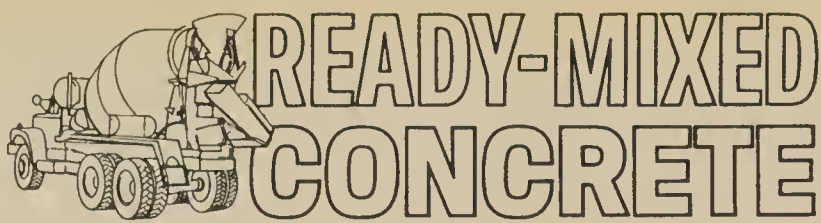
This is only a partial list of the areas in which "Eastern has taken leadership" through dynamic action in behalf of its dairy farmer members. A bargaining organization composed exclusively of milk producers working for milk producers, Eastern speaks out and lends a strong, experienced hand to today's dairy farmer — from individual farm problems to effective representation at all levels of government.

For complete information about Eastern activity and the benefits of membership, contact your local Eastern man or write direct to John C. York at Eastern headquarters. Or, when you're at the New York State Exposition, stop in and chat with us at the Eastern booth in the Dairy Building.

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SO YOU ARE

GOING TO COLLEGE

BY E. R. Eastman

IN ADDITION to my writing, I have had over a thousand hour-long counselling interviews with Ithaca College students in the last four years.

There are few things in life more tragic for both students and their parents than having all your plans and hopes ruined by being busted out of college.

The number of "bust-outs" is tragically high. In some colleges from 25 to 40 percent of those who enter never graduate.

I mention these facts here now because many thousands of you young people, far more than ever before, will be entering college this fall. Thousands more high school seniors will be going to college next year, and perhaps I can make some suggestions that will get you started right and save you from failure.

Chief Cause

The chief cause of drop-outs is failure to work, especially during the first few weeks in college. Attending college is entirely different from going to high school. Time and again I have asked college freshmen about their high school records and they often reply, "Oh, I got by." Well, you can't just "get by" in college. College work is more than just a continuation of high school; it is much harder.

First of all, you are mostly on your own responsibility. There will be no one to tell you when to study, and if you fool around and waste your time the examinations will show you up after the first few weeks. Once you get behind, it is very, very difficult ever to catch up, because there is so much to do every day that there just isn't any time to catch up back work. So you have made a good start toward busting out. It saddens me when a student wakes up and finds it is too late.

I can't over-emphasize the importance of those first few weeks.

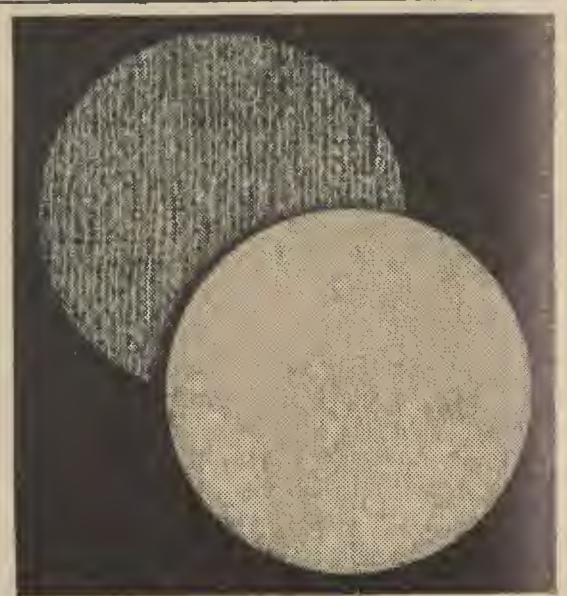
The same principle of working hard applies to your senior year in high school. It is getting more difficult all the time to get into college because there are so many applications. Ithaca College, for example, received over 4,100 applications for the academic year of 1965-66 but could only take 1,100. The first thing entrance authorities look at is your high school record.

Next to work, the second most important thing is to plan your schedule showing how you will use your time for the whole 24 hours of each day. This schedule should include time for sleep, meals, exercise, recreation, and, of course, time for study. The

schedule should provide for using all your time. Many failures result from wasting time.

Having planned your schedule, the next most important thing is to stick to it unless some emergency prevents. The ability and resolution to do things when they should be done take real self discipline. Procrastination has ruined many a college career.

Few students ever realize how important every hour of their school or college time is. You can be happy in college but not for long if you do not assume responsibility and work hard right from the start of the school year. Your high school and college years are the most important of your whole life and the way you use them will determine your future success and happiness.



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American Agriculturist, September, 1965

Food For The Spirit



by Robert Clingan

THE THREE R'S

The traditional three R's of education are "reading, 'riting, and 'rithmetic." What are the three R's of religion?

There is a story that the architect who designed the new Cathedral of Coventry to replace the one bombed to rubble in World War II had these three R's in mind. He wanted to build a cathedral that would signify or embody each of them. In his mind the three R's of religion were relevance, resurrection, and reconciliation.

Religion must be relevant. It must have gears that mesh into the wheels of modern life. It must have a voice that is heard, because that voice has something to say about how men ought to live today. It must speak to our time and condition. It must address itself to the "predicament of modern man."

The Christian religion must proclaim the resurrection. It is our faith and our contention that something happened that first century that transformed Christianity from a bewildered sect that had lost its leader to a mighty movement that proclaimed a living Lord. This resurrection was an "act of God." The Christian religion also pro-

claims the continuing experience of the resurrection. This was anticipated in the book of the Hebrew prophet Ezekial with the bones taking flesh and becoming persons again. This power of the resurrection was demonstrated with the Cathedral of Coventry being rebuilt from the ashes and rubble of its destruction.

The third "R" of religion as understood by the architect of the cathedral is reconciliation. The parish of Coventry is committed to this phase of Christian witness. Teams have gone out from the British Cathedral to Dresden, Germany, to help rebuild churches there.

Early in the period following its destruction, the congregation was reminded of this mission of all Christian people everywhere. When a focal point was needed for corporate worship, two charred beams were wired together for a cross. The cross was anchored in a bucket of stones. In time the words from the first cross, "Father Forgive—" were inscribed at its base.

The world cries "Remember the Alamo," and more recently "Remember Pearl Harbor." The cross of Coventry in its original location . . . or its temporary location in the Protestant Pavilion of the World's Fair . . . says "Father Forgive—." The third "R" of religion is reconciliation. The Apostle Paul says in Second Corinthians 2:19: "... that is, God was in Christ reconciling the world to himself, not count-

ing their trespass against them, and entrusting to us the message of reconciliation."

Relevance, resurrection, reconciliation all add up to the fourth "R" of religion, RENEWAL. A relevant religious faith, proclaiming the resurrection, and practicing reconciliation, will mean the renewal of the world, the church, and the individual.

MILK-PRICING POLICIES

Back in 1890 when Babcock developed the butterfat test, the straight fat payment became the dominant system for paying milk producers. Since the early 1940's, however, milk pricing policies have been in effect in many areas of the country that have attempted to recognize and pay farmers for the nonfat solids portion of the milk as well as the butterfat portion.

Dr. Truman Graf, University of Wisconsin agricultural economist, says that the pricing system based on butterfat was a vast improvement over the former system of paying for milk on a weight basis only . . . but it had one major drawback . . . it failed to recognize the value of other components in milk.

The dairy cow doesn't produce nonfat solids in direct proportion to butterfat . . . the nonfat solids content of milk does not increase as rapidly as the fat content, therefore the pounds of nonfat solids

per pound of fat is less in milk with a high butterfat content.

"It is important to realize that both fat and nonfat solids in milk have value in the market place," says Dr. Graf. In late 1961 only about 17 percent of Wisconsin's milk was purchased on a straight fat basis.

As techniques were developed to test the nonfat solids in milk, pricing plans were employed which recognized both fat and nonfat solids value. These changes in pricing plans have decreased emphasis on fat production. In the period from 1950 to 1959, says Dr. Graf, the average butterfat test of milk produced in the United States declined from 3.96 percent to 3.77 percent butterfat. This represents a 5 percent decline in butterfat test — the largest drop in a decade.

Since 1947-49 there has been a marked change in the consumption pattern. U. S. per capita consumption of milk fat declined 19 percent; butter dropped 30 percent; meanwhile, the per capita consumption of nonfat dry milk increased 88 percent.

Dr. Graf also points out that the shift toward a lower-testing milk has reduced by about 300 million pounds the amount of surplus fat the government has had to purchase since 1950 in an effort to buoy up milk prices. And he is convinced that pricing on a basis other than fat will undoubtedly take on even more significance in the future.



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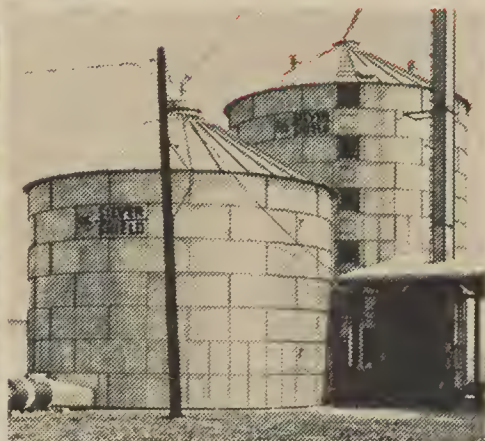
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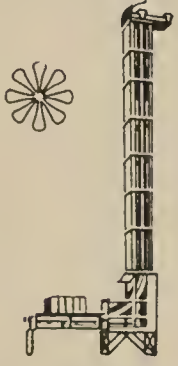
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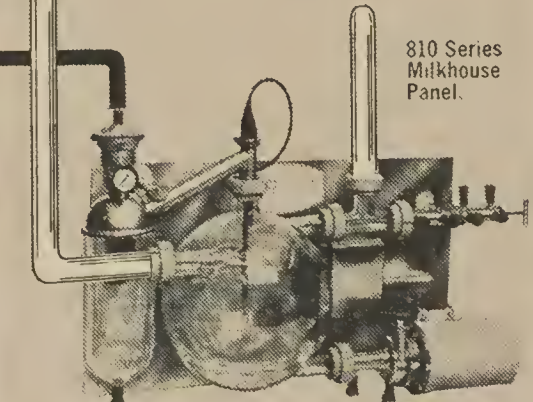
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SOYBEANS FOR NEW YORK

by Norval Budd*

I THINK THERE are many reasons why New York State should try to develop a better-yielding soybean:

1. It looks to me as though soybeans were going to be actively encouraged by the government for several years, with no acreage control or allotment in sight. In fact, our exporting of soybeans is increasing every year.

2. Soybeans carry a high support price. It is \$2.25 on the farm this year, which is somewhat comparable to wheat.

3. Soybeans have returned good prices per bushel to the farmer. I would guess that our extreme price range has been \$2.25 to \$3.25, with an average price of \$2.50 to \$2.70. This year we could have paid the farmer very close to \$3.00 per bushel if we had a consistent quantity to handle. As it is, we get only a few; they tie up a bin and there is a long time between carloads. Consequently, our price has to be lower than I like to see it.

4. Farmers would not need any extra equipment. If they have a grain drill and a grain combine, that is all they need. In some states a lot of them are grown in rows, and I am sure that a regular corn or dry bean cultivator would be suitable for this.

5. There is always an unlimited market for soybeans. I know of at least three national and international grain buyers who would be only too glad to be in the market consistently for soybeans in New York if we had a good quantity to offer.

6. In thinking about the other surplus grains grown in western New York, I am worried about the future of several of them.

(a) Wheat — there are plenty of markets for it. However, a lot depends on government activity. Our class of wheat (soft white), depends more on export, percentagewise, than any other class of wheat in the United States, and as you and I know, most of it goes to very poor nations under Public Law 480. However, I do not see in the immediate future any further reduction in our wheat acreage. I think the government will allow us to grow about as much as we have been growing.

(b) Corn — Since we are a deficit state on corn, there should be no problem. We should be able to move all the surplus corn we grow, although the new change in freight rates may shake up some of the economics a little.

(c) Oats — This is our biggest single grain crop bushel-wise, but I am worried about moving the surplus because it is going down in use every year. It does not pellet well for dairy or poultry feeds. Farmers are also finding out that they do not need it for nurse crop, and also under loose housing they won't need it so much for straw.

* Formerly in charge of Agway grain purchases at Canandaigua, New York

The demand is not nearly as brisk as it used to be.

(d) Rye — this has come up in acreage in the last few years, but there is only one consistent buyer in the whole eastern United States that I know about and that is a very large distillery in the East. Right now rye is a drug on the market; they are not using it because they say that people are not buying rye whiskey as much as they did.

(e) Barley — When Hudson barley first came out, we used to grow as much as two million bushels. However, it has since been steadily going downward because of lodging problems, and it has gone so low that even feed mills are not using it as they used to. It has to sell cheaper per ton than oats. I see no future here, unless we have a variety which would stand up well and yield well.

(f) Buckwheat — Certainly no big plans should be made toward increasing the yield or acreage of buckwheat. It has been going downward for the last twenty-five years and normally the demand equals the supply and vice-versa — but an occasional year one gets a little ahead of the other.

I think there are two things we need to do to increase the planting of soybeans in New York State. Number one is to increase the yield ten bushels per acre, getting it up to around 28. This would mean that our best farmers would then be growing 35 to 40 bushels per acre.

The soybean yield for the last few years has been around 18 bushels to the acre where wheat is around 33. Illinois gets an average yield of 27 bushels of soybeans to the acre, but they have land that sells for \$750 to \$1,000 per acre, whereas ours is grown on land like that in Seneca County probably worth not over \$200 per acre.

Another thing that would encourage farmers to grow it would be to ask the State ASC Office in Syracuse to see if soybeans could not be planted on land that farmers take out of wheat or corn production.

FLETCHER THE 4-H'R

@JOE E. BURESCH



"Let's get going! We can't plow the field by turning it over in our minds!"

American Agriculturist, September, 1965



EXPOSITION TIME

THE NUMBER of farms and farm families of the State may be decreasing, but agriculture will play its traditional major role at this year's New York State Exposition in Syracuse. The Expo opens Tuesday, August 31, and continues through Labor Day, Monday, September 6, seven days and nights.

Regarded as the best agricultural show in the East and one of the best in the nation, the "Really Big" Expo is offering \$138,000 in agricultural premiums this year out of a total of \$150,000 to be awarded. Last year, 22,779 or 80 percent of the Expo entries came from the farm, and 5,395 or 85 percent of the exhibitors were rural residents. These figures are certain to be equaled or topped this year.

Because New York State farming is so diverse, the Expo's half-million visitors receive an almost national picture of agriculture each time they tour its 350 acres.

Cattle Show

Land is not the only thing that's big about the Expo. More than 2,000 entries in 1964 again proved that the Cattle Show is the biggest in the East. With 1,200,000 dairy cows in the State, and 85 percent of them Holstein-Friesians, the Expo, without a doubt, claims the largest Holstein division in the country. Prizes to both dairy and beef cattle will total \$27,225 this year.

The second part of the Expo's extravaganza is the Horse Show, the largest and most complete in the world. The Horse Show will award \$20,470 in cash plus trophies in both Western and English Divisions.

Third of the agricultural features at the Expo is the Farm Machinery Show... the largest outdoor-indoor summer farm machinery show in the East. An added attraction for '65 is a display of old-time steam engines adjacent to the machinery center.

But to make sure that past as

well as present in farming is represented, the Expo continues to enlarge the Witter Agricultural Museum, the only one of its kind in the East and the oldest operating agricultural museum in the country. In addition to early vehicles and equipment, highlights of this year's museum exhibit will include an operating windmill; demonstrations of spinning, weav-

ing, and carving; an 1809 log cabin; period table settings; and Currier and Ives prints.

Youth Department

Perhaps the fastest-growing division is the Youth Department, a fair within the Expo, incorporating all of the entries of the other departments. The 4,000 participants and \$30,000 in premiums demonstrate that this, too, is unparalleled for any state fair.

Not only all ages, but all interests are represented at the New York State Exposition. Urban and rural folk alike will be viewing this year's College of Agriculture Exhibit on the current drought condition, the New York State Agricultural Experiment Station exhibit on chemicals, and the annual Square Dance Festival sponsored by the State Rural Youth Council.

One of the most popular attractions in the Farm Products department is the display of Christmas trees, representing New York State's newest agricultural industry. Other divisions include potatoes, organization collections, packaged vegetable displays by individuals, and maple products. Prizes amount to \$4,737.

Other agricultural departments and their premium totals include: Sheep, \$7,696; Swine, \$4,587; Quality Meats Contest, \$1,260; Poultry, Pigeon, Rabbit & Cavy, \$11,174.50; Dairy Products, \$2,400; Fruit, \$4,300; and Dairy Goats, \$956.

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New York State ranks fifth in production of the country's \$6.8 billion worth of canned and frozen foods. It is first in snap beans, applesauce, apple slices, sauerkraut, and baby foods.

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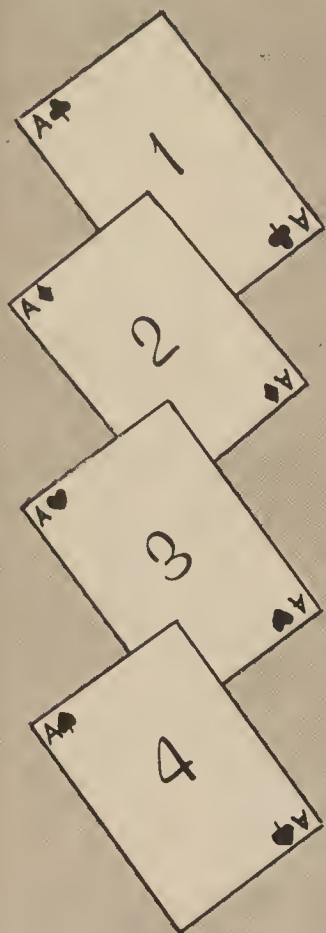
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Syracuse, New York 13202



What's New For Farm and Home



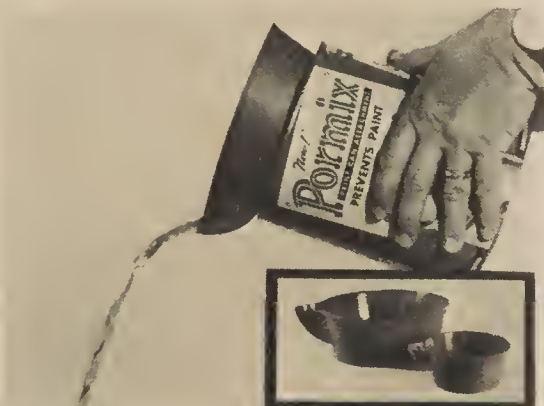
Black, Sivells & Bryson, Inc., 7500 East Twelfth Street, Kansas City, Missouri, is selling a new concept in swine production facilities called "The Bacon Bin" ... sometimes popularly referred to as a "round house for pigs." It's a circular building with feed augered out from the center and has a high level of climate control.

A new bird-scaring device has been developed by B. M. Lawrence and Company, 24 California Street, San Francisco, California 94111. It operates from a 12-volt battery and produces sounds from klaxons (similar to truck horns). It is turned on and off by a simple switch, and has its own electronic timing device.

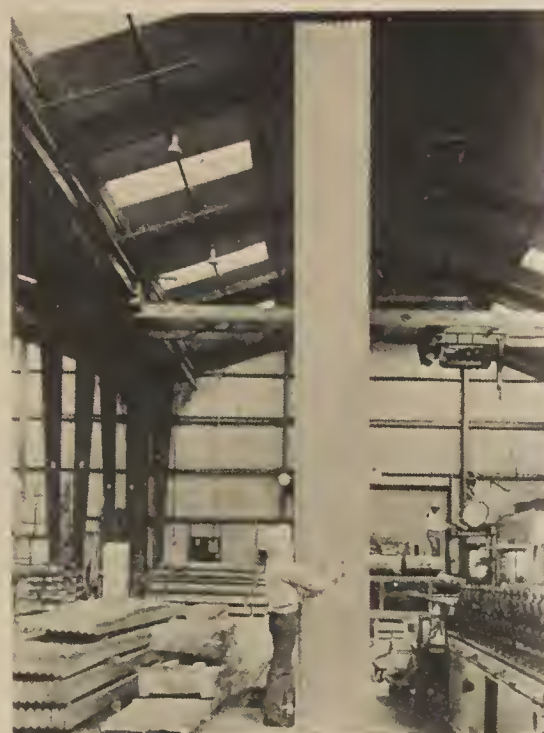
A new cab attachment for the International Harvester Farmall and International 706 and 806 tractors provides protection from rain, sun, heat, cold and dust. The insulated cab features tinted glass, windshield wipers, dome light, pressurizer, red reflector, and rear flood light. It keeps out dust, filters the air, and helps deaden tractor noise. An optional heater also is available.

The FMC Corporation, 1617 Pennsylvania Blvd., Philadelphia, Pennsylvania 19103, is marketing rayon straps for supporting fruit-bearing limbs of apple trees. The Blue Goose Orchards at Hancock, Maryland, reports that use of the straps has cut the costs of materials to support limbs by more than 75 percent, and reduced the time required by 50 percent.

The Cropmaster self-propelled potato harvester from John Bean Division, FMC Corp., Lansing, Michigan, is patterned after giant earthmoving equipment for maximum maneuverability without sacrificing size. By mounting the tricycle-type tractor between the front frame members, the wheelbase is trimmed to 170 inches, and the turning radius is made as short as possible. The John Bean harvester is available in four basic two-row models: 60-inch open throat diggers or dual 26-inch split diggers; available with either adjustable tilt belt or chain conveyor systems.



The PORMIX Paint Can Attachment is made of tough plastic and cannot slip from the paint can, thus preventing paint from spilling when it's poured, stirred or mixed. Usually the paint can's sealing groove becomes a messy trough during painting; but with the addition of a PORMIX attachment the accumulation of paint drippings is prevented, and the lid goes back with no trouble. Made by PORMIX CORPORATION, 404 Del Webb Bldg., 3800 N. Central Ave., Phoenix, Arizona.



Companies making steel or aluminum sheets for building are marketing them up to almost any length, eliminating end lap. For instance, Moncrief Lenoir Manufacturing Company of Fort Worth, Texas, makes a standard 50-foot length, but can "fabricate lengths of any dimension."

A temporary silo using light-weight vinyl plastic is available from Staff Industries, Inc., Upper Montclair, New Jersey 07043. The range in capacity is up to 70 tons.

Ford is now on the market with an entirely new line of four-wheel-drive utility vehicles called the Bronco. It may be ordered in the basic open "roadster" model, a short-roof pickup, or a fully-enclosed delivery or station wagon. The roadster model has no cab roof or doors, but convertible vinyl top is optionally available to provide weather protection.

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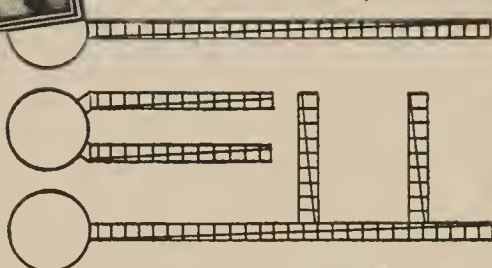


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Mr. Jackson raises most of his replacements and feels that quality feeds are essential to good growth. His milking herd also gets Wirthmore, and DHIA figures indicate that it is a sound program.

1963	1964
50 cows	56 cows
15850 lbs. milk	16860 lbs. milk
3.5%	3.5%
568 lbs. fat	591 lbs. fat

Roads-End stock is well known for high quality. Mitzi Imperial Bessie, for example, was top selling animal at a recent bred-heifer sale and made over 17,000 lbs. milk and 600 lbs. fat in less than 305 days for her purchasers as a two year old.

The Jacksons use very little pasture. They winter feed in the summer, using dry hay in outdoor portable racks and corn silage in the barn.

Wirthmore feeds are doing their part to help grow good stock and increase production at Roads-End Farm. They can do the same for you. Why not try them now?

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Doc Mettler Says:

LIGHT SENSITIZATION TIME

WHAT WAS ONCE considered a typical September here in the Northeast has not happened for several years. No matter how dry the summer, you could usually count on September rains to green things up and help both plants and animals store up reserves for winter. Perhaps this year will bring the change... the rain, the cool nights and warm sunny days that make grass and new seedings grow. If this happens we are sure to see something we haven't seen in three or four years, a case or two of light sensitization.

To one who has never seen light sensitization in a cow, horse or sheep, the first case in one of his animals is startling. He will be apt to call his veterinarian and tell him he has an animal with a strange disease, calling it anything from mange to lightning stroke. A cow or horse with light sensitization will usually not be noticed until the disease has advanced to the stage where the non-pigmented or white areas of the body will look like the hide on a dead animal. The skin will actually be dead, and it will be as hard and lifeless as an old hide that has hung on a fence all summer.

After this dead hide peels off the area will become raw and appear to have been burned with fire. The black or colored area of the animal's hide will be as healthy as ever. Areas that receive direct sun, such as the back, and areas that touch the grass, such as the muzzle and pasterns or fetlocks, are usually the most severely affected. In sheep the muzzle, throat and ears are most often affected. Sheep also show generalized symptoms, that is they become sick, and can become paralyzed and die.

Three things must be present to cause light sensitization in an animal. First, the animal must have the tendency to develop the disease (usually thought to be hereditary), that is, certain portions of its blood are capable of carrying an agent that sensitizes non-pigmented skin cells to sunlight. Second, the animal must be pastured on certain plants that have the agent in them that enters the blood. The legumes, buckwheat, and certain weeds not common in the Northeast, are the usual offenders; Alsike clover is said to be the most common offender. A plant can give off these agents only at certain times, usually an early or new growth. The regrowth we get in a good wet September is ideal for this to happen.

Third, there must be sunshine. Do not confuse light sensitization with sunburn. Sunburn develops when an animal first goes out to pasture, and usually affects only the hairless area such as teats.

Light sensitization starts out, usually late in the summer, with

a swelling or thickening of the skin. There might actually be an exudate of clear amber fluid seeping through the skin for a few hours. If the animal is removed from the sun at this stage rapid recovery usually takes place. If not, the skin soon becomes hard and actually dies (remember, only the white areas are affected). Soon this dead skin curls up on the end like an old shingle and eventually peels off. Under these areas of dead skin flies may lay eggs and maggots develop, or wound infection may occur. On occasion animals, particularly horses, may develop sores on the lips and inside the mouth, or may exhibit symptoms of a general sickness.

Sometimes a yearling heifer may show signs of light sensitization the first year at pasture and never show them again. All too often, however, each summer causes the disease to become more severe.

Treatment consists of using protectives such as you would use for a burn. Lanolin, glycerine, or any mild oil to which a mild antiseptic or antibiotic substances such as zinc oxide or neomycin has been added, can be used to soften up the dead skin. Of course, before any treatment can do any good the animal must be removed from contact with sunlight. A severe case takes weeks to heal.

After an animal heals it can go out in the sun again as long as it doesn't pasture on the same type of plants again. Some severe cases can never pasture during sunlit hours, and must be kept in days all their life.

Prevention Important

Prevention is more important than treatment, and here again keeping animals known to be affected away from the sun is most imperative. If it is found what particular plant the animal is sensitized by, keeping this animal away from that particular plant (by selecting different pasture) may be all that is needed.

It would seem foolish to raise herd replacements from a cow or bull who showed light sensitization, or whose offspring did.

On occasion certain drugs, such as phenothiazine, can bring on light sensitization in sheep. If this is noticed, eliminating the drug and substituting another would be advisable. I have never seen this happen, but have seen a group of army horses which became severely affected by sunlight after being dipped with lime sulphur.

I doubt that light sensitization ever has been, or ever will be a serious problem in the Northeast. However, it is just one more thing that could give you cause to call your veterinarian to diagnose and advise you on. If this September brings the rain to break the drought, a few cases of light sensitization will be almost welcome!

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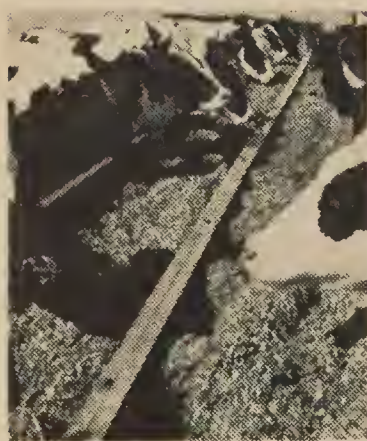
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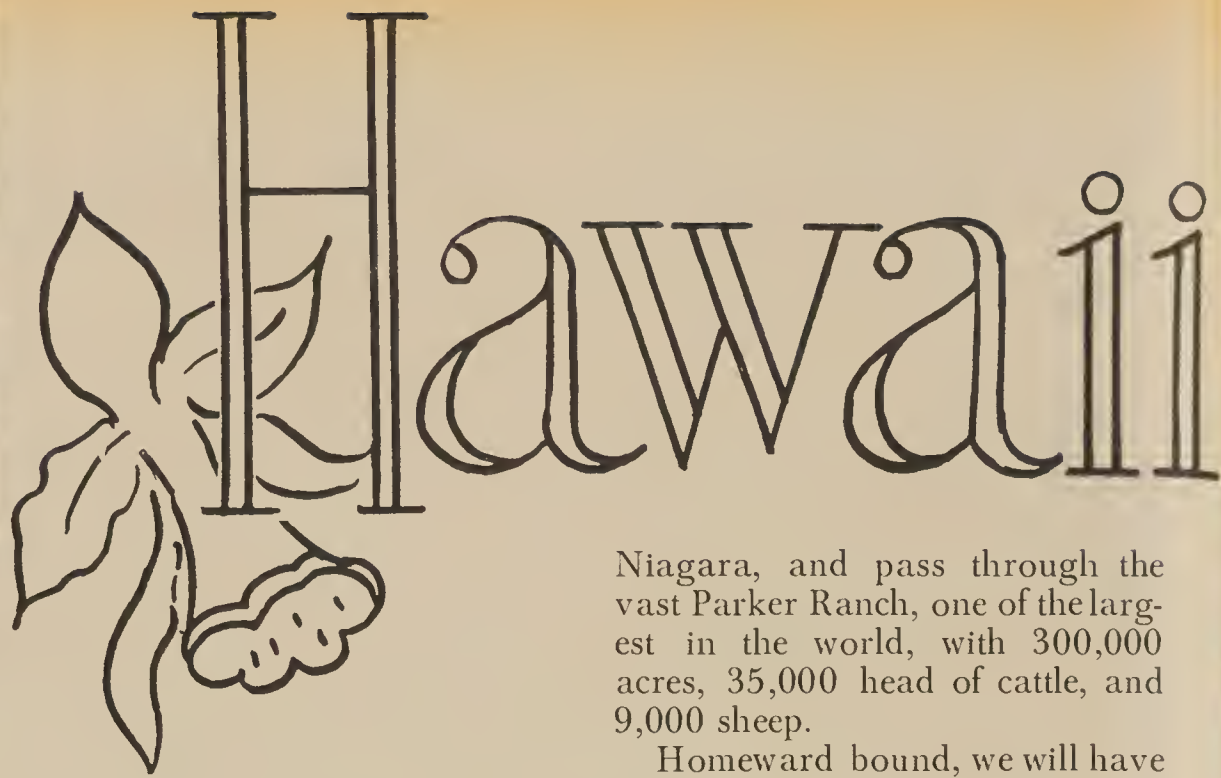
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Dates to Remember

September 18-26 - Eastern States Exposition, West Springfield, Massachusetts.

September 22-23 - Eighth annual Northeast Fertilizer Conference, Wentworth-by-the-Sea, Portsmouth, New Hampshire.

September 23 - Vermont Feed Dealers and Manufacturers Association, 23rd annual meeting, University of Vermont, Burlington.

October 3-4 - National Association of State Departments of Agriculture annual convention, Princeton Inn, Princeton, New Jersey.

October 3-9 - Fire Prevention Week.

October 12-14 - NEPPCO Exposition and Convention, Farm Show Building, Harrisburg, Pennsylvania.

October 16-23 - Pennsylvania National Horse Show, Harrisburg, Pennsylvania.

October 21-22 - Agway Stockholders Annual Meeting, Syracuse, New York.

October 21-22 - New England Holstein-Friesian annual meeting, Durham, New Hampshire.

October 23 - Annual meeting Welsh Pony Society, Holiday Motor Hotel West, Harrisburg, Pennsylvania.

October 25-28 - New York State Grange Annual Convention, Saratoga Springs, New York.

NEXT MONTH will come our last tour for this year — a marvelous trip to Hawaii, October 16 to 30. This will be an air tour similar to the one we had last year which proved so popular and will again include the celebration of Aloha Week.

We'll fly from our most convenient home airport to Chicago where we'll board a TWA jet for the west-bound flight to Los Angeles. After a day of sightseeing in Hollywood, a Pan American jet will carry us to Hawaii, Paradise of the Pacific. Our visit will include the four best known islands — Kauai, Oahu, Maui, and Hawaii.

Kauai is called the "Garden Isle," and its primitive, untainted loveliness will leave us spellbound. Waimea Canyon, Napoli Cliffs, tranquil waterfalls, hushed grottos, and the lush green Hanalei Valley are but a few of the enthralling sights on this exquisite isle.

Oahu comes next, and our hotel is on famous Waikiki Beach. We'll spend one full day taking a circle tour of the island and another afternoon for a cruise of Pearl Harbor to see "Battleship Row."

Our Hawaiian vacation has been timed to coincide with the Aloha Week celebrations. There will be special pageants each evening, with the gala Aloha Week Parade the grand climax of festivities.

From Honolulu, we go to Maui, the "Valley Isle," which offers ever-changing views of picturesque tropical life. Whispering in the breeze on the lower hills and plains are fields of sugar cane, while only a few miles away is the dormant volcano, Haleakala, with a crater so large it could swallow New York City.

Our last island is Hawaii, largest of the chain. Here we will visit Hilo, the orchid capital, and Hawaii National Park with its giant fern forests. Enroute to Kona on the other side of the island, we'll see Akaka Falls, higher than

Gordon Conklin, Editor
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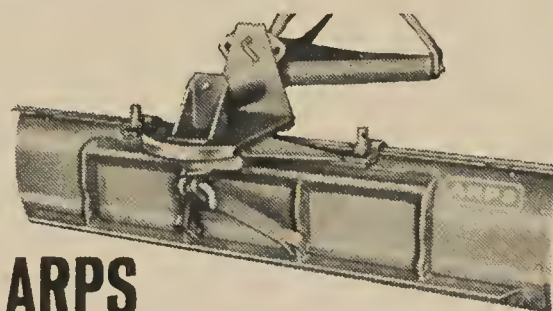
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*Spy Rock Viola Eric,
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Herbert Kallmann has done a remarkable job at Spy Rock Farm, Jewett City, Connecticut.

Back in 1948 he got discouraged with the poor production of his mixed breed grade cattle and started to build a herd of fine Registered Holsteins. He also kept laying hens and cut cedar posts to earn money to buy calves and heifers.

By 1952 the herd had grown so that a new barn and milkhouse were built. Today, Mr. Kallmann has 65 cows, 75 calves and heifers and two bulls. His Spy Rock name is well known as a source of good breeding stock and his Holsteins have achieved outstanding show and production records.

Along with hard work and good management, Herb's feeding program has had a lot to do with his success. It consists of all the corn silage and good quality hay the cattle will consume, plus Wirthmore dairy rations fed at a 3 to 1 ratio. He has fed only Wirthmore for many years.

Has this program worked?

Well, in 1949 the herd average was 8,449 milk; 300 fat. In 1964 the DHIA figures showed 15,397 milk; 596 fat 3.9 for 64 cows. HIR figures for 1964 are expected to be well over 17,000.

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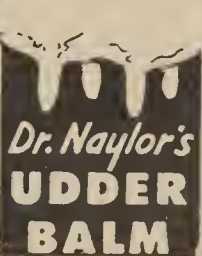
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**A STRIKING
COMEBACK**

by H. A. Willman *

ONCE THOUGHT OF as gradually disappearing from the Northeastern scene, the horse is once again most definitely on the map... and likely to stay there for many reasons. To find out how widespread is this resurgence, in the fall of 1964 Cornell University organized and conducted a statewide survey in New York of the horse population.

Members and leaders of 85 4-H horse clubs surveyed 106 townships in 36 counties. Supplemental information was supplied by registry associations, auction markets, race track officials, the secretaries of county fairs... and in 49 cities by health commissioners and veterinarians.

Increased Breeding

Annually, many horses are brought into New York State, and each year replacements are bred and raised. In the 106 townships surveyed, 1,300 foals were raised. If this is considered representative, for New York's 932 townships we would come up with a possible total of 11,400 foals in the State in 1964.

According to the Department of Agriculture & Markets, 159 stallions of all types and breeds were enrolled in 1954. By 1959, the number had grown to 283, and 1964 showed a total of 711. Several national purebred horse registry associations reported gains of 30 to 60 percent in Empire State business during the past five to ten years. In addition, 25 of them reported 6,236 New York State owners of registered purebreds... and of these owners 37 percent registered at least one purebred in 1964.

More Owners

More people now own horses and in greater numbers than five years ago. In the townships surveyed an increase of 30 percent in numbers of horses per place was noted as compared with 1959 information. Several active breed associations meet regularly, and over 100 major horse shows... and many lesser ones... are held annually. At the New York State Exposition the number of exhibitors at the Horse Show has increased from 216 with 910 entries in 1954 to 600 with 1,165 horses in 1964.

The 4-H horse show at the Exposition adds another 400 horses from about 40 counties... and it would be larger but for the limit of two entries per class. The entire 4-H horse program of the State

* Former 4-H Specialist in Animal Husbandry at Cornell University, Ithaca, N.Y.

has rapidly expanded and broadened to include feeding, fitting and showing, management and record-keeping, public demonstrations by youth, and judging competitions. Presently, 4,687 boys and girls are enrolled in about 188 horse clubs in 54 counties of the State. Nationally, the 4-H horse project enrollments have passed the 100,000 mark.

Horse Racing

Much of the horse racing in the entire country is carried on in New York State, and each year millions of people who wager at tracks indirectly contribute a substantial amount of money to the State. During the season... from spring until late fall... more than 8,000 Thoroughbred and Standardbred horses race at New York tracks.

The State's livestock auction markets report a total of 10,935 head of horses moving through their channels to new owners in 1964.

The study indicated that no special relationship seemed to exist between the relative wealth of the people and horse numbers. On the average, about the same number of horses was found whether the per capita investment in land and buildings was low, medium, above-average, or very high.

More horses are usually kept in the more populous townships. Those townships which surround a village or a small city have more horses than those without a village of a couple of thousand people or more. Apparently a considerable part of the State's horse population is stabled in the urban fringes, or in the outskirts of villages and cities.

Based on an analysis of all data collected in this survey, a horse population of 125,000 seems a reasonable projection for the State.

Dollar Value

The dollar value of the horse industry in the State undoubtedly would reach the 200 million mark by including taxes to local governments, parimutuel revenue to the State, and owners' investment. And its influence on the farmer, the manufacturer of horse feed, equipment, and other supplies, and on veterinary services should not be discounted.

Editor's Note: Professor Willman was directly responsible for organizing and supervising this study, and for tabulating the data. Details have been sent to the county Extension agents.

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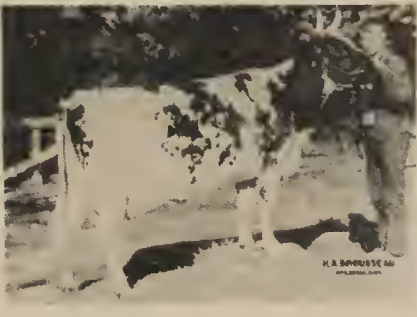
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FAMILY FARM SURVIVAL

by Howard Conklin*

I USED TO take family farming for granted. It seemed to me a very logical... in fact the only reasonable... way to organize things for producing food and fiber. Then I visited some of the other countries of the world and I learned that there are very large areas where one can search in vain for what we think of as a family farm.

In many countries, the majority of food and fiber that passes in commerce is turned out by "haciendas," "fundos," plantations, state farms, communal farms, and other units that clearly are not family operations. In these countries there usually are units worked by families, but these are tiny semi-subsistence units. These are no more like our family farms than are the large operations in those countries.

How Come?

How does it happen that we have efficient, commercial family units... units lying between the two extremes of farm size that predominate in so much of the world? How have our family units been able to compete with the larger units that have taken over commercial production in so many places, and would surely take over here if they could? Why did our family farm units not stay at, or sink to, the subsistence level?

There are two major reasons, I think, for family farmers in the United States being able to compete successfully: (1) farmers here are skillful men, and (2) farmers

here are willing to work for less when they work for themselves than when they work for others.

Farmers in the United States know how to get production out of land and animals; this alone pretty much rules out a slippage to peasantry. At the same time farm incomes consistently average lower than the wages and salaries large farms would have to pay to hire comparable work competently done. When corporate farms try to hire men at prevailing farm income levels they get incompetent workers. And the difference between what farmers will accept in incomes as their own boss and what they, or anyone else, would demand for doing the same work as employees is enough to counterbalance the advantages corporations have in raising capital, in bargaining in the market, in efficiently using big machinery, and in developing specialization among their personnel.

Some people would disagree about the willingness of farmers to accept lower incomes. Even more would be anxious to argue about the justice of farm incomes that are lower than other incomes.

Statistics

On the first point, however, I am well supported by statistics. The great volumes of farm income data that have been amassed over the years show clearly that the average incomes of full-time commercial farmers are lower than the incomes of employees with comparable skills in any other lines of activity. Surveys in which farmers have been asked the minimum salaries at which they would leave farming reveal answers considerably higher than the incomes they currently were getting from farming.

On the question of whether lower farm incomes are fair, I must ask first, what can be more fair than a society that provides a free, or at least quite free, choice between farming and other occupations? In our society, there are practically no formal impediments to changing occupations.

If farmers really wanted higher incomes without changing occupations they could get them too... in fact they are in a much better position than most other groups in our society to do so. People have to eat and they have to buy clothes.

The demand for agricultural products is so inelastic that farm incomes increase rapidly as farmers cut production. Simply stated, inelastic demand means that reducing supply by 10 percent will boost prices per unit by more than 10 percent. Conversely, a small surplus of food knocks the price down far out of proportion to the degree of surplus.

Why don't farmers, then, get together and use this powerful weapon of inelastic demand for

their products to really extract their due out of the rest of society? The reason is exactly the same one that accounts for the predominance of family farms in this country; farmers put a high price on their freedom.

They will not become employees for this reason, and for the same reason they refuse to form an organization as tightly disciplined as most labor unions. To be effective, of course, such an organization would need to allocate rights to produce, set a rigid overall ceiling on production, and limit the number of farmers. Farmers, although wanting the benefits that such a "union" might provide, aren't willing to pay the price in loss of freedom.

And when the government tries to play the part of a union, farmers balk at the controls... or sell those government-created "rights to produce" at such high prices that their incomes soon go back down to where they were. Land suited for peanuts in southern Virginia, for instance, sells for \$100 per acre as land, but with the right to grow peanuts it sells for \$650 per acre.

The man who pays the \$650 is not one whit better off financially than he would have been without acreage controls. It is only the man who happened to own the land when controls were started who benefits; the next man pays so much for the right to produce that the program is of little or no benefit to him... unless the gov-

ernment sweetens it periodically.

Suppose farm incomes, by some magic, were raised to equality with the incomes of comparably skilled people who are employees of industry. Corporations would move into farming immediately. There is nothing so unique about the processes involved in farming, even dairy farming, that organizing it on a large scale basis is impossible.

Nonfarmers would learn to function effectively as corporate employees in farming if farm corporations could pay competitive wages and survive. The thing that prevents corporate farming in most areas of the United States today is the family farmer's willingness to accept lower returns, and thereby to out-compete corporations... in spite of the fact that corporations have many economic advantages.

I am not pessimistic about the future of the family farm. If ever we reach a point where manpower needs to be pulled back into farming, farm incomes are likely to rise so high that corporations will come with it. I cannot now, however, foresee this eventuality.

I believe that family farming will continue, and that farmers will continue to compete ruthlessly, even though quite impersonally, with one another. And I am sure that in this competitive struggle the leaders will continue to accept new technology, and the others will have to follow suit or slide down the profit ladder.

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Between classes, students visit outside ivy-walled Main Building at SUC, New Paltz.



Grandma Goes to College!

by Inez George Gridley

WITH JUST ONE fledgling left in the home nest, I wanted to go back to teaching school. My 1929-model Normal School diploma assured me I was entitled to teach, but my 1962 common sense dug me in the ribs and insisted I go back to college for a remodeling job. That is how, a mother of three and grandmother of five, I found myself starting a new career in teaching and going to college too.

Registration that first day at State University College at New Paltz was painful and enlightening. I managed to pick up the wrong registration packet so had to go through the whole hot, hurried, crowded process twice. Gone was the old upsy-daisy approach of the twenties! In my day, the school wooed the student. That sweltering day in July, it seemed as if the undergraduates were almost shoving, kicking, biting, and clawing to get places before class quotas were filled.

I crept timidly into a science class at 8:10 the next morning. A sweet young thing in her teens sat on my right at the lab table. On the other side was a boy younger than our son, but glory be!, down the line I spotted a gray head and saw others of my own vintage. I soon found Grandma is no rarity at college. Some come joyously; others come dragging their feet but doggedly working for needed credits.

The science instructor was young, conscientious, and as stiff as his own crew cut. When I felt myself floundering and complained to him how hard it was to learn at my age, he told me unfeelingly that probably I had "never learned to study." Bless his heart! If he had coddled me then . . .

Sometimes I felt like an intruder from the dark ages. What on earth was the quantum theory? D N A? Photosynthesis? The expanding universe? Would I ever find all the answers? Of course not, but my interests broadened like waves from a pebble dropped in a pool.

I began to get my breath and look around me at New Paltz. What had happened to the pro-

vincial atmosphere of the twenties? Seemingly, the whole world had come to this little college town. I felt a sense of being caught up by the wave of the future!

A beautiful Indian girl in a sari turned out to be Dr. Swani, instructor in Sociology. I studied International Politics under gentle, witty, scholarly Dr. Channing Liem, a Korean. In the next room a Formosan, Dr. Lin, held classes. I attended a forum lecture given by a visiting professor just back from spending twelve months at a Moscow university.

A group of Irish teachers enlivened the campus with their warm, rich brogue. One of my classmates was a native African, struggling with English, but making fine grades as he prepared for a teaching post in his homeland. Another classmate, an American Negro, sat near me in a social science class. Struggle as I would, I could not match his single-minded scholarship.

Sixty young people training for a Peace Corps assignment in Sierre Leone were on campus that summer. Eleanor Roosevelt, shortly before her death, came to spend a day with them in her official capacity as one of the directors. Simply and touchingly she spoke to some of us at an outdoor forum. Hearing this plain, awkward old woman speak from depths of sincerity and purpose was one of the most moving events of my life.

Taking things for granted is for the very young! I felt over and over again how fortunate I was. A winter extension course in writing with Mr. Richard Rhoades was pure delight. I returned to my first grade at Tri Valley School determined they should miss none of the joys of creativity. Words tumbled over each other, leap-frogging and turning cartwheels.

Thrilling Journey

I shall never forget one icy winter night I drove over the Shawangunk Mountains to New Paltz. I climbed the steep stairs to the laboratory on the top floor of the main building for my Principles of Biology class with Dr. Richard Jones, little dreaming of the journey I was yet to take that night!

I had no luggage and no pass-

port, but looking through the eyepiece of a powerful microscope for the first time, I entered the Lilliputian land of bacteria and lymphocytes, chromosomes and genes. This trip thrilled me even more than my first journey to outer space by way of a telescope in Astronomy.

There is even a warm feeling of gratitude on my part for instructors who coast along on past accomplishments, dishing out leftover lectures like lumpy, warmed-over oatmeal. How else would I have become acquainted with T. S. Eliot and Marcus Aurelius, with Dylen Thomas and Dr. Schweitzer?

Had things really changed, or had I? The dingy, high-ceilinged old classrooms in the main building that I remembered so well now had tall windows opening on a wider world. The beauty of the campus struck me with physical force. I watched sedate, fat robins frolicking in the spray of lawn sprinklers that first dry summer. Later on I saw the campus giddy with autumn color, dusted with the first snow, and then subtly changed to a Renoir landscape on a pale green day in April.

Sharpened awareness of color, sound, fragrance and touch came. And more important, my orbit crossed the path of others . . . like the woman with thick-lensed glasses who made room for me and my tray one day in the crowded snack bar. She had a sabbatical leave from her teaching job and was soon to start on a journey around the world, culminating in a long stay in Japan.

During our short time together, I gained new feeling for my job and glimpsed new goals in teaching.

My first grade class accepted the fact that I, too, was going to school. When I finally brought home the coveted diploma, they rejoiced with me. I treasure pictures some of them drew of me in cap and gown!

"A" For Effort

At home, I found my grandchildren taking my flyer into higher education for granted. I borrowed my son's and daughter's college textbooks and called on them for criticism of term papers, which they gave me with devastating candor! "Well, Mom, I'd give you an 'A' for effort, but otherwise . . ."

Anyone who decides on a college career at my age needs to be sound of wind and limb and willing to give up the little luxuries of pampered existence, such as sleeping late mornings on weekends, card playing, club meetings and long sessions at the beauty parlor. She should also have a good, sturdy digestion and be able to exist on a quick cup of coffee and a doughnut. Studying can be done at odd moments if you can remember to carry a textbook along to the dentist, and keep your glasses handy at night in case you have insomnia.

Grandma could never have gone back to college without wholehearted cooperation at home. Nights after school when I dashed off for an extension course at college forty miles away, Dad and our teen-ager managed without me at home. Other nights they urged me on when my spirits lagged. . . "Why are you watching that silly program? Don't you have any homework to do?"

(Continued on page 53)

Future teachers attending class lecture at New Paltz.



FAVORITE DESSERT RECIPES

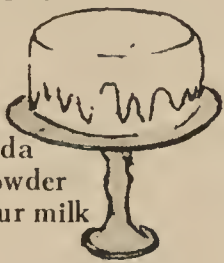
FROM OUR FILES

by Alberta D. Shackelton

IT'S FUN to test new recipes, but I imagine most often you fall back on the tried and true ones which are favorites in your family, the same as I do. The following dessert recipes have appeared in American Agriculturist over the years and are those you've frequently asked us to repeat. Some might even be "new" if only recently you became a reader of A. A. In any case, I hope you'll enjoy them.

DOMECON CAKE

- 2 squares baking chocolate
- 1 cup boiling water
- 1/2 cup butter
- 2 cups sugar
- 2 cups cake flour
- 1 1/2 teaspoons baking soda
- 2 teaspoons baking powder
- 1/2 cup buttermilk or sour milk
- 2 eggs, beaten



Melt chocolate in the boiling water, add to butter and sugar, and stir until all are melted. Cool. Sift together the flour, baking soda, and baking powder, and add to the chocolate mixture, blending well. Stir in the sour milk and then the beaten eggs.

Pour into three 8-inch greased or paper-lined cake pans. Bake in a moderate oven (350) about 30 minutes. Cool. Remove layers from pans, put together with chocolate cream filling and frost generously with fluffy frosting (recipes below). Serves 10 to 12.

CHOCOLATE CREAM FILLING

- 2 cups scalded milk
- 1 1/2 squares chocolate
- 1 cup sugar
- 1/3 cup flour
- 1/4 teaspoon salt
- 2 eggs, beaten
- 1 teaspoon vanilla

Scald the milk with the chocolate. Combine sugar, flour, salt, and beaten eggs and add the scalded milk slowly. Cook in a double boiler or over low heat until thickened, stirring constantly. Add vanilla and cool, stirring occasionally during cooling to prevent a crust forming.

FLUFFY FROSTING

- 1 egg white
- 2/3 cup sugar
- 1/4 cup light corn sirup
- 3 tablespoons water
- 1/4 teaspoon salt
- 1/8 teaspoon cream tartar
- 1 teaspoon vanilla



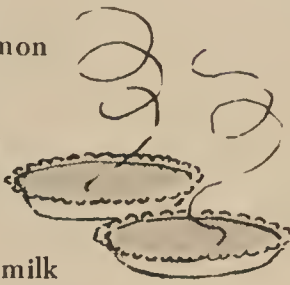
Combine all ingredients except vanilla in top of double boiler and mix well. Place over boiling water and beat with rotary beater or electric beater until stiff — about 4 minutes. Remove from heat and continue beating until frosting will stand up in soft peaks. Add vanilla. Spread over top and sides of cake and use remaining frosting to make swirls and peaks on top and sides.

Note: I like to double this frosting recipe so I have plenty of frost-

ing to pile high on cake in fluffy peaks.

BEST-EVER PUMPKIN PIE (Two 9-inch pies)

- 1 large can pumpkin (about 3 cups)
- 2 cups brown sugar
- 1 teaspoon salt
- 2 teaspoons cinnamon
- 1/2 teaspoon ginger
- 1/4 teaspoon cloves
- 1/4 teaspoon nutmeg
- 1 tablespoon flour
- 5 eggs
- 1/4 cup molasses
- 2 cups evaporated milk
- 1 cup water



Combine pumpkin with sugar, salt, spices, and flour. Beat in the eggs. Stir in molasses. Add the combined milk and water and mix well. Pour into two 9-inch pastry lined tins. Sprinkle with cinnamon. Bake in a hot oven (425) about 30 to 35 minutes, or until a sharp knife inserted in center of pie comes out clean. Cool.

At serving time, top with plain sweetened whipped cream or fold into the sweetened cream 1/2 cup crushed peanut brittle, 2 tablespoons candied ginger bits, or 1/2 cup chopped pecans. Each pie will

serve 6 to 7.

If you wish to bake only 1 pie at a time, freeze half of the pie mixture and thaw when ready to use for second pie.

OLD FASHIONED LEMON CREAM PIE

- 1 8-inch baked pie shell
- 1 cup sugar
- 1/3 cup cornstarch
- 1/4 teaspoon salt
- 2 cups milk
- 3 egg yolks
- 1/3 cup lemon juice
- Grated rind of 1 lemon
- 2 tablespoons butter
- 3 egg whites
- 1/4 teaspoon salt
- 1/8 teaspoon cream tartar
- 6 tablespoons sugar

Combine sugar, cornstarch, and salt, and gradually stir in the milk. Cook over low heat until thickened and smooth, stirring constantly. Combine egg yolks, lemon juice, and rind with a small amount of the hot mixture and then add to remainder of the hot mixture, stirring constantly. Cook three minutes longer. Stir in butter and set aside.

To make meringue, beat egg whites until foamy. Add salt and cream tartar and continue to beat until stiff peaks form. Add sugar gradually and continue beating until peaks are very stiff and glossy. Place lemon filling in pie shell and spread meringue over top, being careful to seal to edge of crust.

Bake in moderate oven (350) about 8 to 10 minutes, or until

lightly browned. Serves 6.

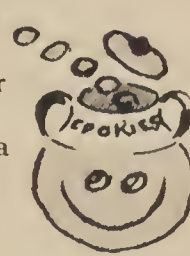
FROZEN DESSERT SALAD

- 12 marshmallows, quartered OR
- 2/3 cup miniatures
- 1/2 cup fruit juice
- 1 3-ounce package cream cheese
- 1 cup heavy cream, whipped
- 1 cup mayonnaise
- 1/2 cup maraschino cherries
- 2 cups canned or fresh fruit (peaches, pears, white cherries, etc.) OR
- fruit cocktail, halved grapes, cut pineapple, and mandarin oranges.

Combine marshmallows and fruit juice and let stand until softened. Stir cream cheese until very soft, fold in whipped cream, and mayonnaise and mix until creamy. Fold in marshmallows and fruit. Pour into freezer tray or individual molds and freeze until just firm. Cut in squares and serve on greens. Serves 8.

GINGERSNAPS

- 1 cup molasses
- 1/2 cup shortening
- 3 cups all-purpose flour
- 1 tablespoon sugar
- 1 teaspoon baking soda
- 2 teaspoons ginger
- 1 teaspoon cinnamon
- 1/4 teaspoon salt



Heat molasses and shortening together until melted. Sift dry ingredients together and add to the molasses mixture. Mix well. Roll small amounts of dough at a time, very thin or about 1/8 inch thick, as desired. Place on lightly greased cookie sheet and bake in moderate oven (375), 8 to 10 minutes. Makes about 6 dozen snaps.



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8214
36-52



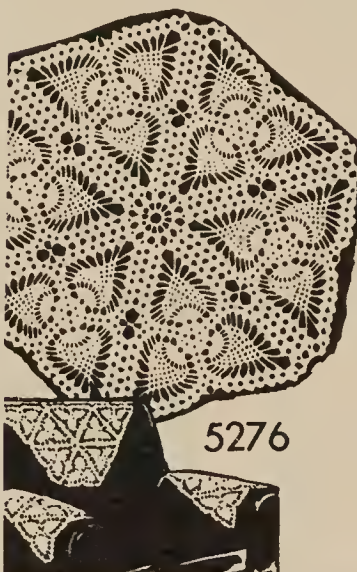
5231-H

5231H. A little fisher boy quilt for a tot's room. Tracing pattern for applique and pieces; quilting instructions.



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If you want your home grounds to look as well cared for as those in the picture, a little work done this month will pay big dividends next spring.

SEPTEMBER GARDENING

by Nenetzin R. White

AFTER A NICE relaxing summer, there are now a few gardening chores to be done that will not only make your garden more beautiful, but will also cut down your work next spring.

LAWNS

Apply weed killers now to rid your lawn of perennial weeds and to keep the annual ones from seeding. Today, you can get several products that will kill both the broad-leaved and vining weeds in one application. (The sole exception seems to be the pesky veronica.)

Many people feel that their lawn is such a mess of weeds and poor grasses that it should be plowed up or rototilled and started anew. Not necessarily so at all! Every time you disturb the soil, you bring to the surface weed seeds that have been deep and dormant; then they germinate, and you have a new crop of weeds. Top soil added to your present lawn will do the same thing. Some weeds are known to lie dormant 18 to 20 years, until brought to the surface.

It's far better to apply weed killers, re-seed, and embark on a consistent plan of using organic fertilizer. With three soil-building feedings a year (spring, summer and fall), you won't know your own lawn!

If you feel that your situation is really hopeless, there is a product on the market that can be applied directly over your present turf. (For very dense turf, give two applications). It will kill everything, grass included. Then five days later, re-seed over the killed grass, start your organic feedings, and you're in business.

"Thatch" is a layer of clippings and dead grasses that builds up, especially during these drought years. Without moisture, these clippings do not rot or decompose, and they form an impervious layer so that seeds, water, and fertilizer do not get down to the soil level and grass roots.

Several machines are on the market that will thin and kick out these dead grasses—you just won't believe the quantity. Essentially, these are power rakes. Your lawn then will be in good condition to re-seed and fertilize. These also do a good job of aerating the soil.

Most lawns will benefit from a light re-seeding at this time. Kill

weeds first if they are a problem. Never apply ANY weed killer over seeding less than 6 or 8 weeks old, and do use good perennial grasses such as blues or fescues.

Feeding will do the most good if applied now, for grasses grow best in the cool fall evenings. If you use an organic fertilizer, a double feeding can be applied. I feel that if more money were spent on good fertilizer and less on seed, we'd all have better lawns!

PERENNIALS

Early fall is a good time to plant or transplant perennials, so they can get a well established root system before the ground freezes. You can also divide perennials now, especially peonies, iris, Oriental poppies, etc. Don't forget a good mulch (we favor wood fibers late in the fall, as there's no blowing) AFTER the ground has frozen solid, NOT before.

BULBS

Fall is also the time to plant spring-flowering bulbs. The beauty of these is that they flower when almost nothing else is in bloom. These bulbs are simple to plant—just follow the growers' instructions. I feel that groups or drifts of the same color or variety are most effective, and I believe it is best to dig up the whole area you plan for each group, rather than planting each bulb individually. This method makes for more uniform growth and height.



HEARD FROM THE HERD

by Sally Goth

"State fairs attract bigger crowds as space-age exhibits displace rural flavor."

Hi diddle diddle, how thoughtlessly mean

Of you fickle state fair officials
To by-pass the bountiful, bouncing bovine

In favor of space-age missles!

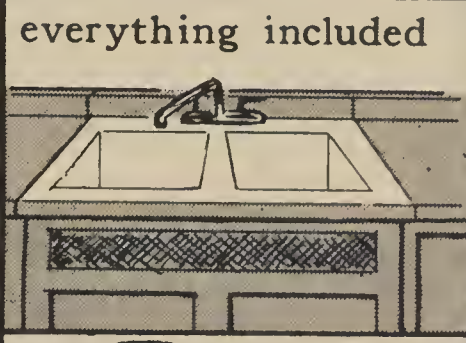
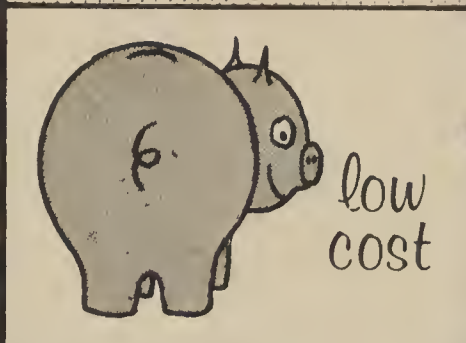
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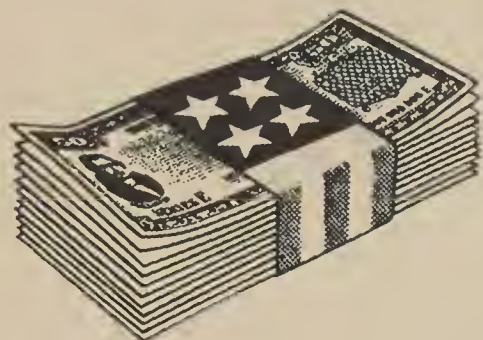
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YOUR FALL FASHIONS

The start of school means new friends, new fun, new learning, and especially a wardrobe that is fresh and pretty as the autumn days ahead!

A fresh wardrobe does not necessarily mean all new clothes. You can spruce up last year's clothing by cleaning and laundering, repairing torn hems and seams, and sewing on buttons where needed. Neatness is the key to fashion grooming. The important thing is not how many clothes you have but how you wear them!

For a "new look" this year, mix and match your sweaters and skirts differently. Perhaps you'll want to wear last year's gray flannel skirt with a beige sweater, or an olive drab skirt with a bright cherry red sweater. A perky ribbon tie at the neck of one of last year's blouses helps make a smart outfit. And if you are a "sewing scholar," and your favorite dress is too short this year, how about a ruffled or pleated hem in a contrasting color? Add the pleats or ruffles to the sleeves, too—and you have a new dress!

We all keep growing, and you may need some new clothes for this year. Before going shopping with mother, make sure you study your present wardrobe. Most of the clothes you buy now are for school, but keep in mind where else you can wear them. Don't buy a skirt that can only be worn with one sweater or blouse, or a sweater that is too dressy for school. The purpose of a skirt and sweater wardrobe is to mix and match . . . and make a few look like a lot!



IT'S REALLY BIG!

ALL ROADS in New York State will lead to Syracuse from August 31 to September 6. Why? Because everyone will be going to the "Really Big" 1965 State Exposition! There will be 1,001 things to see and do for all members of the family, and following are just a few of the events scheduled for the Art and Home Center (formerly the Women's Division).

Delightful smells of international foods will pervade the All-Gas Demonstration Kitchen, where each afternoon special dishes of a certain nationality are spotlighted. Included will be the French, German, Polish, Spanish, and Pennsylvania Dutch.

Leading food experts will show you how to make all sorts of tempting and nutritious dishes and tell you about the newest kitchen products. Among fair goers' favorites returning this year are Elsie Masterton, author of the Blueberry Hill Cookbooks, Marie Gifford of Armour & Company, and the R.T. French Company's Rita Dubois.

(Continued on page 53)

The AA Clothes Line

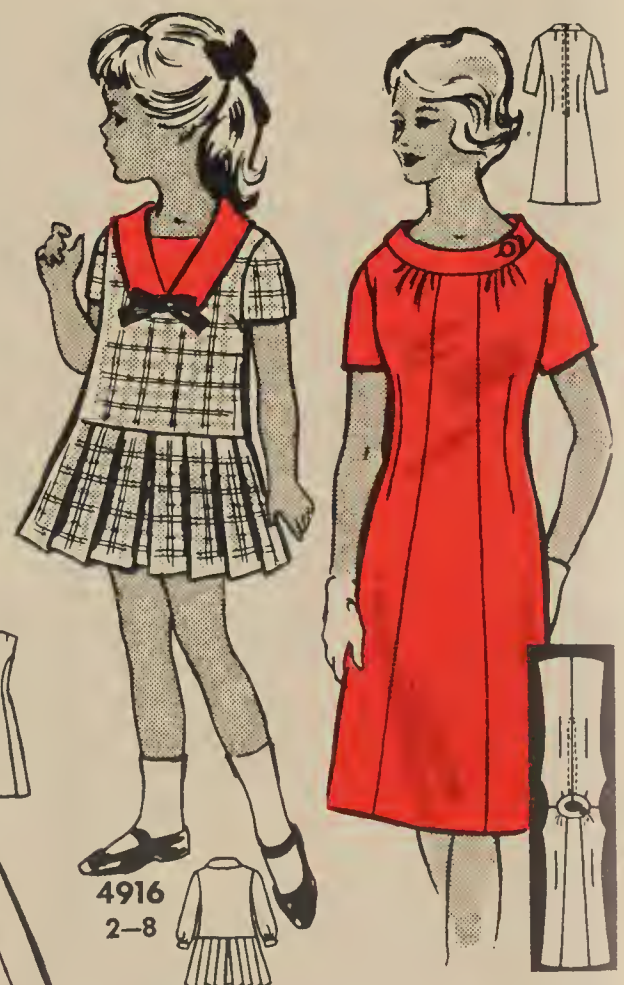
4916. Bouncy pleats, contrasting trim. PRINTED PATTERN Child's Sizes 2, 4, 6, 8. Size 6: 1-1/2 yards 45-inch; contrast. 35 cents.

4562. Band collar tops easy skimmer. PRINTED PATTERN in Half Sizes 12-1/2 - 22-1/2. Size 16-1/2: 2-7/8 yards 39-inch. 35 cents.

7444. Jumbo hit! Jacket is knitted in one piece from neck down. Directions for sizes 32 - 46 included in pattern. 25 cents.

4970 10-18

7444



4916 2-8

4562 12½-22½

Printed Patterns



9450 12½-26½



539

539. Knit this cozy coat for your dog. Collar converts into a hood. Directions for sizes 10, 12, 14, 16, 18 are included. 25 cents.

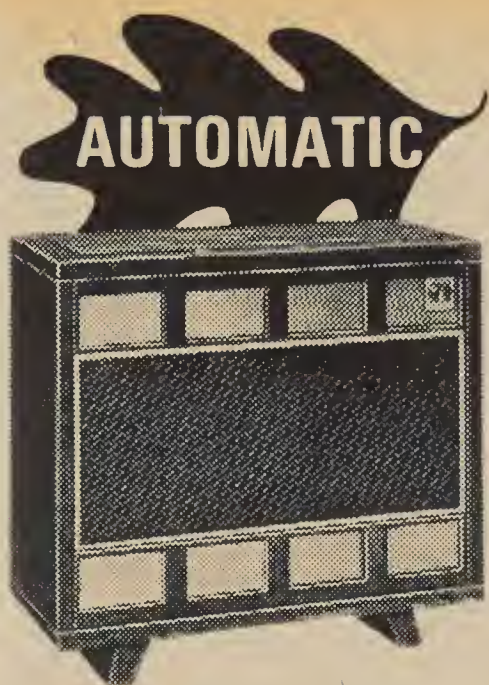
9450. Smart skimmer! PRINTED PATTERN in Half Sizes 12-1/2 - 26-1/2. Size 16-1/2: 2-5/8 yards 45-inch fabric. 35 cents.

4970. Dress, two jackets -- one knitted of mohair. PRINTED PATTERN Misses' Sizes 10-18. Yardages, directions for knitted jacket in pattern. 35 cents.

4817. Step-in casual! PRINTED PATTERN in Misses' Sizes 12-20. Size 16 takes 3-3/4 yards 35-inch fabric. 35 cents.

9417. Suit trio! PRINTED PATTERN Half Sizes 12-1/2 - 22-1/2. Size 16-1/2 suit: 3-7/8 yds. 39-inch and blouse: 1-3/4 yds. 35 cents.

DRESS PATTERNS are 35¢ each. NEEDLEWORK PATTERNS are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011. Write name, address, pattern size and numbers clearly. Send 50¢ for our CATALOG OF PRINTED PATTERNS showing over 350 design ideas. MAIL COUPON in Catalog and get one FREE PATTERN. See more than 200 designs to order in our Giant 1966 Needlecraft Catalog. Printed in the book are THREE FREE PATTERNS. Send 25¢. New, DECORATE with NEEDLECRAFT Book—25 complete patterns for decorator accessories shown in 5 room settings. Send 50¢ now.



WOOD-BURNING



Now—a new, automatic wood-burning home heater that lets you dial your heating comfort. Needs fueling just once every 12 hours—remove ashes just three times a month. New, modern console styling. World famous Siegler quality construction and exclusive features.

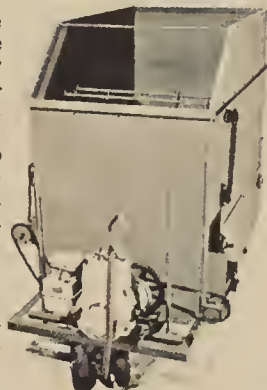
FOR FREE FOLDER AND NAME OF YOUR NEAREST DEALER, WRITE:

SIEGLER HEATER CO.
DEPT. AA 965
CENTRALIA, ILLINOIS



THE "600" SELF PROPELLED, SELF UNLOADING FEED TRUCK

Now you can save half the time or more feeding ensilage or green chop automatically. No more do you need to use a fork! Unload from the silo or forage wagon directly in the feed truck and power will do the rest.



Reversing two speed transmission. Low speed for feeding—high speed for returning quickly to the silo! Feed can be windrowed or piled in front of each animal. The short turning radius makes this unit very maneuverable and easy to operate.

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Joyful News For Dairymen Troubled With Mastitis.

U. S. Dept. of Agri. Calls "Early Detection and Frequent Use of The Brom Thymol Test, Extremely Important."



Veterinarians use and recommend them. Make the regular test of every cow a MUST!

50 TESTS ONLY \$1.00

Write for FREE SAMPLES

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HOOF ROT?

CANKER — THRUSH

A powerful, penetrating antiseptic and absorbing agent for stubborn hoof infections. Easy to apply—pour it on. No bandage required. \$1.25 at drug and farm stores or write.

H. W. Naylor Co., Morris 4, N.Y.

**Dr. Naylor's
LINITE**

Personal Farm Experience



Eugene Boshart in his berry patch.

PICK 'EM YOURSELF

Every year we set out 7 acres of strawberries. They are picked for two years, so we have 14 acres to harvest. This is a "pick-'em-yourself" deal, and people come for miles around because I have the only sizable acreage in the area.

I also grow 7 acres of peas for customers to pick, partly because peas leave the ground in fine shape for berries. However, I sell about 500 to 600 bushels of peas, and then turn the cows into the field.

I don't restrict the pickers; they

can go anywhere they want. Sometimes when there are a lot of them, I don't even count the baskets. I take their word for how many they have.

I like to try new varieties as they are developed, but my strawberry standbys are Catskill, Sparkle, and Robinson. I like Empire, and Vesper and Midway, two relatively new varieties, look good.

I have irrigated for ten years. It is a "must" if you want a good crop every year. One year I didn't irrigate at all, but the equipment was good insurance. In the best season I ever had we sold 46,000 quarts. For the past year we have had some winterkilling, which resulted in about half a crop.

We are growing berries with less labor. A chemical weed killer helps, but in addition we cultivate four times and hoe by hand once.

I enjoy growing berries, but not picking. We do not pick and sell any; customers do all the harvesting. I wish a few more farmers would grow the crop in the area. In fact, I tell folks that they can dig plants here to set out, and I never charge anything for them.

— Eugene Boshart, Turin, N.Y.

Really big.....

(Continued from page 52)

The Home Arts and Crafts Department will feature demonstrations in the fields of weaving, rug making, crewel work, pottery, quilting, and furniture refinishing. Prize winning entries will be on display as usual, with emphasis placed this year on original designs, versus articles made from "kits."

Have Fun...

For the fourth year, the Auburn Children's Theater ACT-Wagon will be an attraction for both young and old. This year's production is "The Wizard of Oz," and three shows will be given daily.

"King of the Road" Roger Miller and "Queen of the House" Jody Miller will perform in the free Empire Court Outdoor shows. And Lassie, world-famous dog (with her trainer) will show some of the tricks required for movie making and TV programs.

Last year's Spelling Bee was so popular that the Art and Home Center is sponsoring another one as an opening-day feature. Master of Ceremonies will again be Robert Earle of the General Electric College Bowl.

But Learn, Too

There will be many educational exhibits, including one on "Shopping for Credit," prepared by the New York State Extension Service. Home economists will be on hand to explain the various types of credit available today and to answer questions on any particular home financial problem.

Another exhibit entitled "Wom-

en in Politics" will trace women's part in the United States political picture over the past 50 years.

A portable classroom will be constructed in front of the Art and Home Center. Fully equipped with blackboards, sinks, rest rooms, and fluorescent light, the classroom can be moved to another location in two sections and be ready for occupancy in two days.

Women's Day

Wednesday, September 1, will be Women's Day, which is highlighted each year by the traditional luncheon in the Helen Bull Vandervort Wing of the Harriet May Mills Building. And this is when winners of the Community Service Awards receive their prizes.

Plan now to spend as much time as you can at "the Fair." It's your opportunity to see the prize-winning products of farm and home, to learn what's new, and to have a real good time!

Grandma.....

(Continued from page 48)

I'll have to admit there were a few times when I found myself looking back to the old leisurely "Along the South Road" days, when there was always time to sit down at the typewriter and dash off a poem or a piece for American Agriculturist. But I don't subscribe to this nonsense about growing old gracefully. I just want to keep on growing.

An old neighbor of ours put a new roof on his house when he was eighty and didn't hesitate to plant a tree for fruit and flower he would never see. I think of him and try to live each day as if life would last forever.

SAVE 40¢ ON AGWAY MILK REPLACERS

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*** THRU ***
SEPT. 25

Your choice of these three fine Agway replacers:

Milksaver—Easy to mix and feed. Remains in solution. Protein 24%, fat 5%. High quality protein. High in calcium and phosphorus. Vitamins and antibiotics added.



Sted-A-Milk—28% protein. Broad spectrum antibiotics provide improved feed efficiency. B-complex vitamins, plus A and D added.



Veal-N-Gro—As a replacer or a veal-grower, gets your calves off to a fast start. High in fat—20%. Fortified with 25 mgs. per pound antibiotic.

Don't miss the discount period. September 25 is the last day... \$40/bag savings on any of the three Agway milk replacers, designed for more profitable, calf-rearing programs.

Agway

Dairy Feed and Services



ED EASTMAN'S PAGE

A TRIP TO NEVER-NEVER LAND

I think most of us like to feel that we have given some happiness to others. Nothing that has ever happened has given me more pleasure than the letters and telephone calls I have received about my book "Journey to Day Before Yesterday."

Readers tell how they sat up most of the night to read it, how they read it aloud to their families, and how it helped them to relive the old days and remember old friends who are dead and gone. One reader said so many of his friends had read his book that it looks as if it had been to war.

Now that the long evenings are here again and you have more time to read, maybe you would like to take a trip with me back to the never-never land when life was young and gay.

This book can be purchased through American Agriculturist, Inc., Department Book, Savings Bank Building, Ithaca, N.Y., by sending your check or money order for \$5.95.

A HEAVY RESPONSIBILITY

Last August I visited a farmer who had about 60 acres of as nice silage corn as I have seen. It was well eared and mature and all ready to go into the silo. The farmer had 60 cows and a nice herd of young stock. He had harvested a fine crop of hay and had some other farm projects.

As I visited with him, all I could think of was the tremendous load of responsibility he and thousands of other farmers carry, for he did all that work with no help whatever except, of course, good equipment.

Remembering the old days when I filled silo, it made me tired just to look at this man's big field of corn, to say nothing of his milking 60 cows night and morning every day in the year.

That man and thousands like him was a prisoner to his job. Suppose he got up some morning with a raging headache, the beginning of a long illness. Suppose he broke an arm or a leg or came out second best in a fight with his tractor or his bull.

Suppose any one of a dozen things that could happen to him so that he could not work . . . remembering that it is almost im-

possible to get competent help. What then?

What can he do to anticipate such a truly desperate situation? There is no really satisfactory answer, but here are a few suggestions:

No matter how good your mechanical equipment is, your own body is by far the most important machine on the place. You would not dream of running your tractor or any other machine without regularly making sure that it was in good working order. Yet how long has it been since you had a good check-up by a doctor?

When you drove horses you knew how important it was to give them enough rest. Driving yourself almost on a run 15 hours per day is just asking for trouble.

More and more business executives are realizing how necessary vacations are for themselves and their employees.

How about life, accident and sickness insurance? You insure your buildings; it's just plain common sense also to protect yourself and your family.

How much planning have you done to insure some kind of a substitute when you are disabled? I don't believe in women doing farm work, but they and the boys and girls should be taught to run the milking machine and to do other work if necessary.

Perhaps you can plan with your neighbors to help each other out in an emergency . . . but it is too late to do it when the emergency is upon you.

WHERE

IS IT ALL TO END?

On just one page of our local daily newspaper on the evening before I wrote this were five stories or articles all relating to the spending of public money. Some of the headlines read:

Council to consider \$1 million in Four Bond Issues.

Moving Railroad Loop Estimated at \$1/2 Million.

County Okay To be Asked.

They'd Get \$18 Million if War Bill Honored.

Budget Figure Not Disclosed.

Of course those items related only to local expenditures, and do not include State and Federal spending.

As you know, the New York State Legislature this spring approved the highest budget in the history of the State, and also passed a 2 percent sales tax.

Not to be outdone in this orgy of high spending of the people's money, Congress passed the Medicare law, and has approved Federal Expenditures beyond the imagination of man.

On top of public expenditure, millions of individuals are far over their heads in personal debt.

Have we American people taken complete leave of our senses? Where is it all to end?

Don't we realize when we go to Washington or to our State Capital to ask for handouts that money does not grow on trees? Washington has no money except that which comes from your pocket and mine. Governments earn nothing, they just spend. What goes up must come down, perhaps with the greatest financial crash in all history. Debts must sometime be paid. What kind of an inheritance are we leaving our children?

May God help us when the day of reckoning comes, as it surely

will if we don't stop this mad and reckless spending. We can stop it if we get mad or scared enough, and if we do our part and stop running to government for things we can do without.

When that time comes, I hope it won't be too late.

In one small city the school administration proposed a 12 percent increase in the school budget for next year. The people objected by the hundreds, so that the final budget was increased only 5 percent.

Do your representatives . . . local, state and national . . . know how you feel about the soaring taxes? If not, then you have nothing to do except just pay the bills and stand like sheep to be sheared.

OUTDOOR LIVING ROOM

I suggest to Grangers and to Grange lecturers that you make a real project of improving the appearance of your community.

Your neighborhood is your outdoor living room, especially in the summer time. Are you proud of it? Take a little tour and make special note of ways in which your community can be made more beautiful. Mention these ways on your Grange program; ask members to follow up with suggestions.

Some definite suggestions are: Get people to clean up the trash in both house and barn yards; store machinery when not in use; and keep weeds and grass mowed.

Maybe you can get some perennial flowers to growing. A beautiful one is a climbing rose called Blaze. It lives up to its name, for it is a blazing red and blooms all summer. Just this one flower alone on nearly every country place would change the appearance of your whole neighborhood.

How about it? Folks should do some living as well as make a living.

EASTMAN'S CHESTNUT

A man who had imbibed more than he could carry was "sleeping it off" in a bar. Seeing a chance for devilry, two or three "bar flies" got some limburger cheese. Working carefully so as not to awaken the drunk, they smeared some of the cheese across his upper lip and into his nostrils. Then they sat down to await results.

Now, I never ate any of the horrid stuff but once . . . and that was once too much. Take all the evil-smelling things on the Lord's green earth, combine them, multiply the combination by a thousand million, and the result will smell like a rose compared to limburger cheese!

Soon their victim woke up, and with a frustrated, distressed look on his face began to wander around the room, sniffing. After a few moments he clamped on his hat and hurried outdoors. He was soon back, and looking more frustrated than ever he shouted:

"The whole cussed world stinks!"



To those of us who love the country and this Northland of ours, September has a charm all its own.

Most of the crops are harvested, and life has slowed down a little after a hot and busy summer. A blue haze blurs the distant horizon, the sun is pleasantly warm on your back, and the gentle wind on your face speaks of the fragrant woods and fields that it crossed to reach you.

The long evenings have come, and you gather with those you love on the porch perhaps for the last time this year. Down the creek Pa and Ma bullfrog are having a mild family argument. Crickets set up their noisy racket in the yard

making much ado about nothing. Fireflies light their lamps which, like our lives, are infinitely small against the eternal darkness around them.

You talk a little but mostly you are quiet, wondering how you are going to adjust your life without George, your youngest, who leaves on the morrow for college. You know he will never be home again for any length of time.

But tomorrow comes and tomorrow is another day. The weather has changed and a heavy frost lays on the land. A new season has come and there is work to do. Thank God for work, and for your life partner who still marches at your side on the Great Road.



SERVICE BUREAU

CLAIM REFUSED

"Could you help me with a claim against an insurance company? A while ago I fell downstairs backwards and was immediately hospitalized. The company has refused the claim for medical reasons and, after the accident, they cancelled my policy. This claim was for an accident and had nothing to do with my health. When I took this policy out, I was in good health."

Mrs. G.T.

The fact that Mrs. T.'s claim was for an accident had nothing to do with the company's refusal to pay or their cancellation of the policy. In checking her claim they discovered a previous medical history, which she had neglected to note on her original application for the insurance. Had her previous illnesses been noted on the application the company might have attached a rider to the policy excluding those illnesses, or they could have refused to issue the policy.

A part of the application read: "To the best of your knowledge have you, or any member listed above, been disabled by either accident or illness during the past five years, or have you or they had medical advice or treatment, etc."

This claim was refused, the policy cancelled, and the premium refunded because Mrs. T. had failed to answer this question fully. When she filed her accident claim, the company found from her doctor's report that she had had previous illnesses. Had they been aware of this at the time she applied, they told us they would not have issued the policy.

We receive a number of complaints against health and accident insurance companies, and for the most part these are because the policyholder has either (1) failed to read his policy carefully so that he knows exactly what the coverage is or what any limitations may be; or (2) neglected to fill out his application truthfully and completely, so that the company is aware of any pre-existing conditions.

With life insurance, also, if medical facts are misrepresented on the insurance application and the company becomes aware of this, they will probably cancel the policy; or if the applicant should die within two years and the company can prove he filed a fraudulent application, they will refuse payment.

State insurance departments have rigid requirements which a company must meet in order to be licensed in that state. When companies are licensed in your state, they are under the jurisdiction of the state insurance department; their policies and the rates they charge must be approved; and they must sell the policies through agents who have passed special examinations.

Even among licensed companies there are differences as to cost, coverage, and claim settlement. It is because of these variations that

it is so important to read the whole policy carefully when you are buying insurance. Remember, you are covered only for what is actually stated in the policy, and it is only this for which the company is responsible.

PAINT SPRAYERS

"Not long ago two young men drove in with a little red truck with a paint sprayer in the back. They had sprayed my neighbor's roof with asphalt aluminum and wanted to do mine for \$50.00. I finally said 'yes.'"

"Soon one came down from the roof and said the bricks inside the chimney were chipped and the cement gone. They could spray cement on the inside and save me building a new chimney. I asked how many gallons it would take at \$10.00 a gallon, and he said he couldn't tell, that it would be measured by the machine."

"When I came to pay, he said it was 48 gallons or \$480.00 plus \$50.00 for painting, a total of \$530.00. I was so stunned at the bill that I could think of nothing else to do but that I would have to pay it. Everyone tells me now that I paid many, many times more than I should have. Is there any way I could get any of it back? I cannot afford to lose all that money, and I cannot understand why I ever let a check like that go through."

Unfortunately, this is another case of itinerant workers and there is no way of tracing them. They fast-talk their victims into letting them do a job and then they move quickly on.

ADDRESSES WANTED

The families of John and Sebastian Durez, who lived near Croghan, Lewis Co., N.Y.

* * *

Joseph Brimm Germain, who lived on Big Tree Road near East Aurora, N.Y.

* * *

Melvin P. Verschneider, whose last known address was 21 Evergreen St., Cortland, N.Y.

* * *

The Raymond Keith family who lived in Hamilton County, N.Y. about ten years ago.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Perry DeWitt, Livingston Manor . . .	\$ 26.44
(payment for ginseng)	
Mrs. Ernest Bogdahn, Hartsdale . . .	2.50
(refund on cards)	
Mrs. Harold Wells, Hartford	100.00
(refund on drapes)	
Mr. James Davis, Delhi	75.00
(insurance settlement)	
Mr. Alfred Kaiser, Monsey	21.00
(non-delivery claim)	

PENNSYLVANIA

Mr. Vernon Wetherbee, Centerville . .	44.75
(acc't credited)	
Mrs. Rufus Carberry, Brookville . . .	7.96
(refund on order)	

NEW HAMPSHIRE

Mrs. Herbert Keyes, Wilton	2.00
(refund on merchandise)	

CONNECTICUT

Mr. Edward Wonoski, New Haven . . .	1.10
(refund on book)	

\$1405.00 Benefits Paid Policies In Force Only Four Months Eight Days



Mr. Erwin Proseus of Sodus Point, N.Y. received \$1405.00 check from agent Claire Reynolds of Palmyra, N.Y. Mr. Proseus suffered a fractured pelvis and internal injuries when a machine fell over on him. He was working in a food processing plant at the time, he also is a part time farmer. Two North American accident policies gave Mr. Proseus medical expense and loss of income payments. Here is his letter of thanks:

"We certainly appreciate your protection. Thanks ever so much and will recommend your insurance to many more. I would also like to thank you for having such a good agent as Mr. Reynolds."

Erwin Everett Proseus

OTHER BENEFITS PAID

Fred Graham, Belmont, N.Y.	\$ 408.00	Irvin T. Kratzer, Baldwinsville, N.Y. ..	\$1,578.56
Fell on stump—fract. ribs, injured chest		Fell getting off tractor—fractured skull	
Arthur D. Bailey, Castle Creek, N.Y.	1,120.00	Clarence Moore, Canandaigua, N.Y.	1,445.13
Fell—fract. hip		Caught hand in corn picker—broke & cut hand	
Morgan Hillebert, Cattaraugus, N.Y.	516.41	Patrick Kelly, Pine Bush, N.Y.	276.71
Attacked by bull—fractured ribs		Thrown from truck load of hay—	
Gerald T. Butts, Cato, N.Y.	1,589.65	injured shoulder	
Hand caught in gears—crushed fingers		John Benthin, Albion, N.Y.	959.75
David N. Crowell, Cherry Creek, N.Y.	634.53	Fell off scaffold—broke arm, injured chest	
Fell from silo—back injury		Dale Phillips, Parish, N.Y.	305.86
Jeanette B. Smith, Pine City, N.Y.	335.86	Truck accident—fractured head, face, arm, knee	
Kicked by calf—cerebral concussion		Louis L. Glodt, South Edmeston, N.Y.	855.00
L. G. Carter, Ellenburg Center, N.Y.	225.00	Auto acc.—fractured arm and body	
Crushed by cow—broke ribs		Lauren Lytle, Rensselaer Falls, N.Y.	300.45
Richard Keefe, Earlville, N.Y.	515.00	Slipped climbing off tractor—fractured back	
Hit by cow—fractured back		Mertie Rourke, Madrid, N.Y.	411.42
Vina Stratton, Oxford, N.Y.	1,124.28	Auto acc.—fract. pelvis, cut head	
Fell on stairs—fract. hip		Philip King, Sharon Springs, N.Y.	522.45
Elwyn H. Allen, Marathon, N.Y.	1,116.43	Playing soccer—fractured knee	
Fell from hayloft—fractured lung, head, ribs, hand		Joseph Hauruski, Campbell, N.Y.	138.28
Robert V. MacGibbon, Walton, N.Y.	427.14	Door shut on finger	
Crushed by cow—fractured back		Mildred Oltz, Willseyville, N.Y.	1,405.00
William Collins, Malone, N.Y.	220.00	Fell—broke hip, injured knee	
Injured back while haying		Ruth Dedrick, Dryden, N.Y.	376.25
James Hart, Johnstown, N.Y.	150.00	Fell from stepladder—fract. arm	
Auto accident—cut scalp, bruises		Vitalise Charlebois, Glens Falls, N.Y.	214.28
Roy Harloff, Batavia, N.Y.	865.20	Thrown by cow—fractured chest and ribs	
Auto acc.—cut face, arm, knee, body bruises		Karl P. Conrad, Strykersville, N.Y.	235.00
Julia Harloff, Batavia, N.Y.	1,712.02	Fell off hay wagon on highway—	
Auto acc.—inj. legs, hip & head		inj. foot & ankle	
Harry C. Burton, Dolgeville, N.Y.	962.34	Arden Sorensen, Himrod, N.Y.	425.98
Fell from ladder—fractured shoulder		Truck accident—inj. spine, concussion	
Merle P. McWayne, Watertown, N.Y.	245.58	Carlton B. Cole, Wyalusing, Pa.	554.02
Fell riding horse—fractured wrist, toes		Struck knee with pitchfork—puncture wound & infection	
Lowaine Wooschlagher, Lowville, N.Y.	255.00	Rodney Gourley, Sugar Grove, Pa.	1,090.85
Caught foot in power take-off—fractured ankle		Auto acc.—broke arm, severe cut face	
Robert Patrick, Perry, N.Y.	260.00	Maynard Douglas, Pleasant Mount, Pa.	570.00
Kicked by cow—fractured arm		Kicked by cow—fractured arm	
Hazel Koennecke, Cazenovia, N.Y.	267.87	John Lyzenga, Long Valley, N.J.	802.71
Fell thru porch floor—fractured leg		Fell on edge of wheelbarrow—fractured back	
Vernon R. Johnson, Churchville, N.Y.	1,159.28	Theodore Wolcott, Greenfield, Mass.	219.25
Fell while cutting wood—fractured back		Fell on floor—broke teeth & ribs	
Horace Bauder, Fort Plain, N.Y.	228.56	Beryl Bither, Houlton, Maine	142.00
Kicked by bull—fractured leg		Fell on kitchen floor—broke arm	
W. Francis Oram, Blossvale, N.Y.	365.71		
Loading equipment fell—fractured back			

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THE NORTH AMERICAN COMPANY

FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

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SAVINGS BANK BUILDING

ITHACA, NEW YORK

Drive it... feel it pull...
a new sensation in 3-4 plow
lugging power

NEW-SIZE FORD 4000

A half ton heavier, with a new margin of strength in every detail. 46.7 horsepower* from an all-new, 3-cylinder engine that ranks with the toughest, longest-lasting ever built. A great new balance of power, weight, and strength makes this a totally new Ford—your kind of tractor.

**Maximum observed PTO horsepower, diesel.*

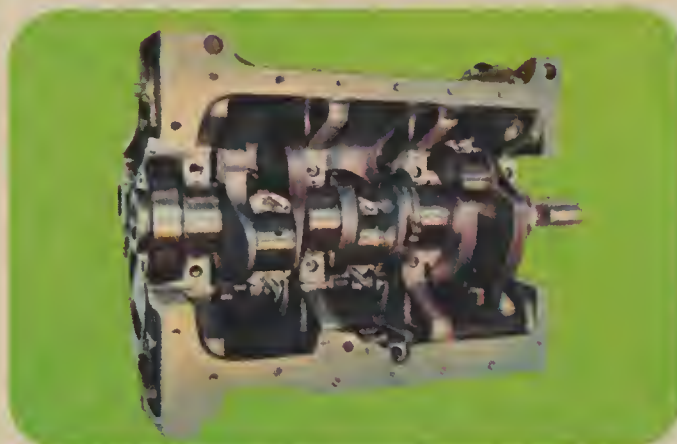


TRACTORS

EQUIPMENT



Smooth, responsive power combines with tremendous lugging ability in the New-Size 4000. Official tests show drawbar pull increases an amazing 27 percent for diesel, 24 percent for gasoline, as engines are pulled down to half rated speed! Think of the gearshifting you'll save with an engine that lugs like this! Here's torque, delivered where it counts.



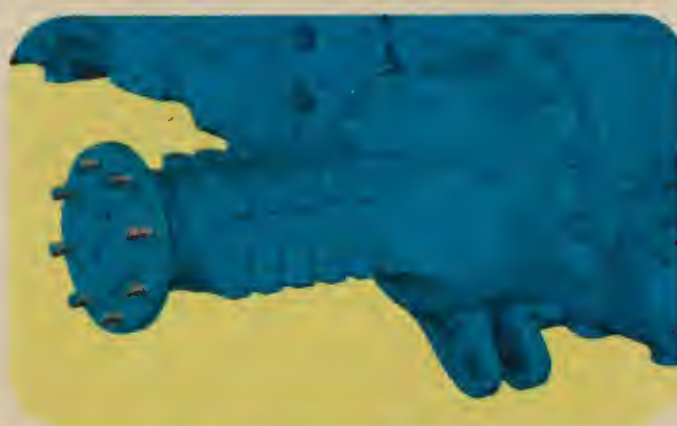
Massive strength shows in this crankshaft. Main bearings, a whopping 3 $\frac{3}{8}$ inches in diameter, are solidly supported in one of the strongest cylinder blocks ever built for a 3-4 plow tractor. Ford's three-cylinder design uses fewer and stronger moving parts. These engines are built to lug and last.



More up-front weight helps make the New-Size 4000 the steady, stable, and sure-handling tractor that it is. You'll feel the added traction as the 4000 leans in and pulls through the tough spots—and enjoy the new steering ease and sure control on the turns.



Fully independent PTO is optional with the rugged, all-new 8-speed transmission and standard with Ford's famed 10-speed power-shift Select-O-Speed—the only full-range, power-shift transmission in the 3-4 plow class! With it you can match pull-power and travel speed to field conditions on-the-go, while maintaining steady power flow to the PTO shaft.



Ever see strength like this in the final drive of a 3-4 plow tractor? Square axle housings give tremendous rigidity. Planetary reduction gears, mounted inboard on each axle, reduce load on differential and transmission. Long-lasting multiple disc brakes are fully enclosed, sealed from dust and mud.



Drive a New-Size Ford 4000. Enjoy the many advances it brings to 3-4 plow power. Select diesel or gasoline with transmission and PTO of your choice. Other options include power steering and diff-lock. Ask your dealer about Ford's new custom-built order plan. Get fast delivery of the exact tractor you want. See him today!

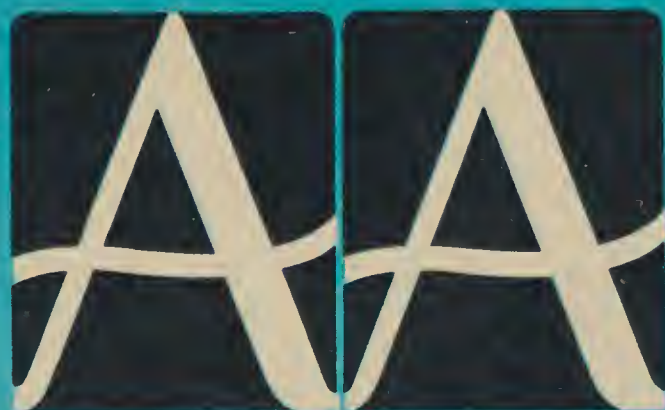


FORD
HEAVIER, STRONGER
TOUGHER!



RIDE WALT DISNEY'S MAGIC
SKYWAY AT THE FORD MOTOR COMPANY
PAVILION, NEW YORK WORLD'S FAIR

OCTOBER 1965



American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER



New Ford **TRADE'N SAVE** Plan

helps smart farm managers save BIG!

Here's a new Ford plan keyed to good farm management. It covers both tractors and equipment. For example, see how you can benefit on a new tractor needed for spring work . . .

CONSERVE WORKING CAPITAL

Trade now. No need to tie up available cash. Your old tractor probably covers the down payment. You'll make no payments, owe no financing charges for the period of Oct. 1, 1965, to April 1, 1966. And your new investment is protected by life and property insurance.*

SAVE CASH

Your dealer can offer more for used equipment now than he can next spring. Early deals give him time to recondition trade-ins during slack winter months, have them ready for resale before the peak use period. And don't overlook chances of realizing sizable 1965 income tax advantages by trading now.

CUT EXPENSES

No winterizing, tune-ups, repairs or new batteries needed if you trade that old tractor now. Save time and effort, too. Speed through fall and winter jobs with an easy-starting, sure-footed New-Size Ford.

You can choose the financing plan best suited to your needs—monthly, semi-annual or crop. It goes into effect April 1, 1966 (on tractors). Until then, it doesn't cost you a nickel. See your Ford dealer, now.

*Credit Life insurance on unpaid balance, up to \$10,000 (\$5,000 in New York State). Property insurance protects against losses by fire, flood, lightning or earthquake; \$25 deductible on losses by theft; \$50 deductible on collision or upset. Insurance plans are optional at extra cost in Arkansas.



On implements you get the same liberal Trade 'N Save terms as on tractors. Effective dates Oct. 1, 1965, to April 1, 1966—a maximum of six months' benefits. Upgrade tillage, planting, and other equipment to make best use of New-Size Ford power.



Look ahead to haying with Ford Quality Haymakers. For balers, rakes and conditioners, effective Trade 'N Save dates are from Oct. 1, 1965, to June 1, 1966. Forage harvester dates are from Nov. 1, 1965, to July 1, 1966. These give you up to eight months' benefits.



Finish 1965 corn picking with a new Ford championship picker, make the first payment after part of your 1966 crop is in the crib. Corn picker Trade 'N Save dates are Nov. 1, 1965, to Sept. 1, 1966—a maximum of 10 months' benefits.

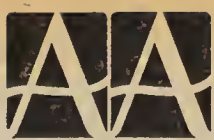


TRACTORS



EQUIPMENT

FORD
HEAVIER, STRONGER
TOUGHER!



American Agriculturist

and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 162, No. 10

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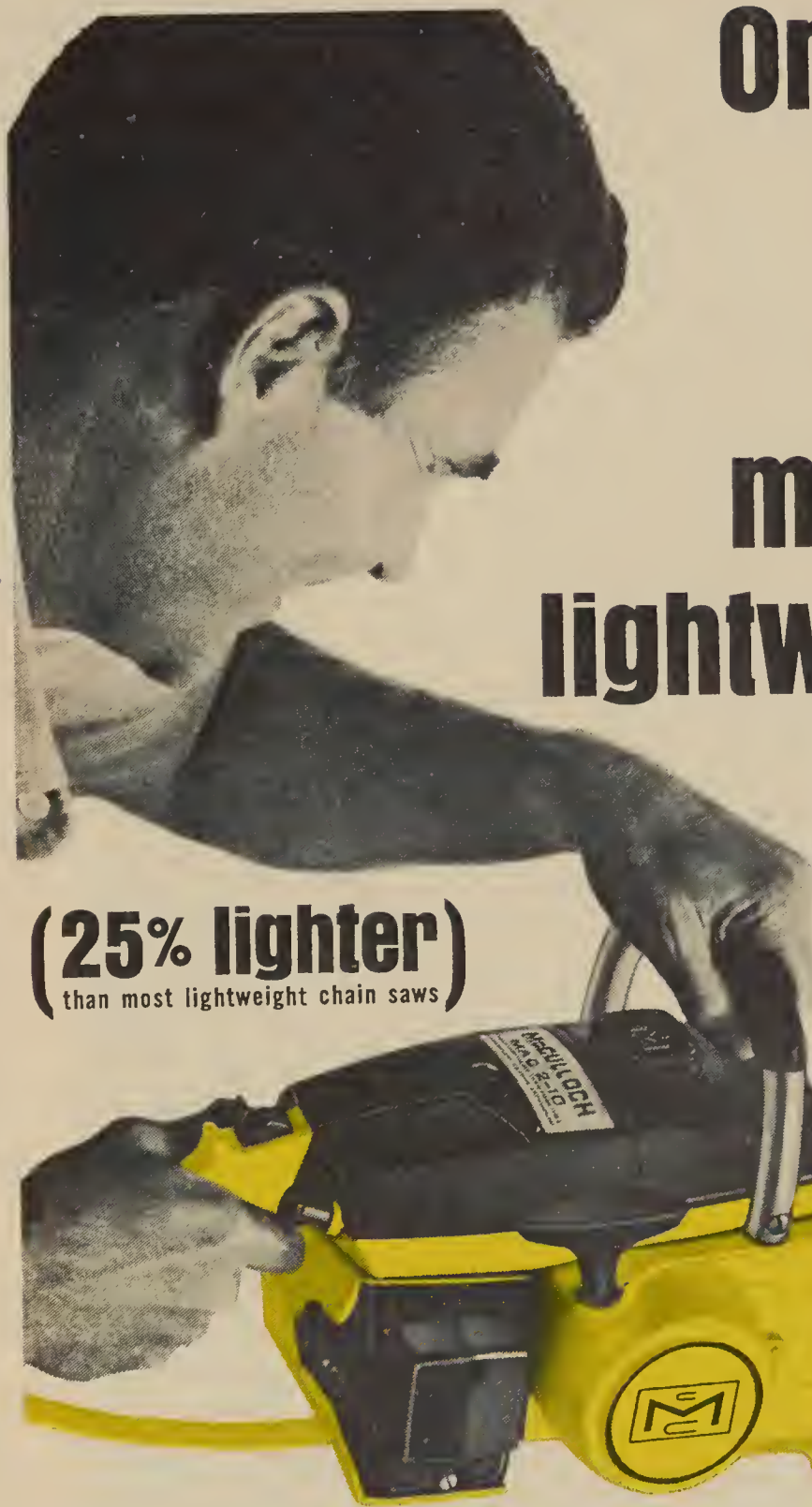
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(25% lighter)
than most lightweight chain saws

On July 1, 1965 the new McCulloch MAC-10 series made every other lightweight chain saw overweight and out-of-date

MAC 1-10: The world's lightest direct drive chain saw. 10½ lbs.*

MAC 2-10: World's lightest automatic oiling chain saw. 10¾ lbs.*

*POWER UNIT ONLY. DRY LESS BAR AND CHAIN. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Easiest Operating Lightweights Ever: The new MAC-10 Series saws are up to 25% lighter than most so-called lightweights, yet have every feature you could ask for.

Automatic Oiling: MAC 2-10 features automatic chain oiling for longer bar and chain life *plus* a separate manual system, so you can supply extra oil for the toughest cutting conditions.

Famous McCulloch Dependability: The MAC-10 Series saws are new from grip to tip. New concepts reduce parts by 30%, yet the MAC-10's retain all the performance, features and dependability you expect in a McCulloch.

Extended Working Life: Unlike some other lightweights, the MAC-10's cylinders can be rebored and fitted with new pistons for years of extra life. The MAC-10 Series has ball and needle bearings throughout, and every working part on the MAC-10's is cast and machined from the finest steels and alloys available.

Longer Running Time: With oversize oil and fuel tanks standard on the MAC-10's, you can cut as long as most full sized saws. And with McCulloch's new single-jet carburetion system and new MAC-10 Series engine design, fuel consumption is cut as much as 12%. Precision engine tolerances allow the use of McCulloch oil at a 40:1 gas/oil mix for even more economy and virtually smoke-free operation.

Power For Fast Cutting: McCulloch's advanced engineering means more usable power. When you make the first cut, you'll know that lightweight doesn't mean under-powered.

Fast, Reliable Starting: The MAC-10's combination of primer and exclusive idle governor means you get fast, sure starts. For added convenience, MAC-10's feature right-hand starting.

Runs In Any Position: No matter what position you cut in, you'll get full power from a MAC-10 Series saw. The idle governor allows the MAC-10's to idle without stalling or sputtering.

Pick The One That's Right For You!

MAC 1-10: Complete with specially designed bar and chain. Available with 12", 16", 20" and 24" McCulloch guide bars and new long wearing chain for all general purpose cutting jobs.

MAC 2-10: With the same equipment and options as MAC 1-10, plus automatic chain oiling with separate manual system, special spark arrestor and muffler combination, plasticized handle frame for non-slip operation, and rubber insert on the pistol grip. The MAC 2-10 is ideal for the man who wants a lightweight with everything as standard equipment. See your McCulloch dealer now for a demonstration of the new MAC-10 Series. You'll find him in the Yellow Pages, or for a full-color catalog on the MAC-10's and 9 other new McCullochs, write McCulloch Corp., Dept. AA, 6101 W. Century Boulevard, Los Angeles, Calif. 90045.

McCULLOCH

CHAIN SAWS • OUTBOARDS

LEADERSHIP THROUGH CREATIVE ENGINEERING

MAC-10 SERIES SAWS ARE THE LIGHTWEIGHT LEADERS IN THE COMPLETE McCULLOCH LINE OF ELEVEN DEPENDABLE CHAIN SAWS FOR PROFESSIONAL, FARM, CONSTRUCTION AND HOME USE

**YOU
CAN WIN TWICE
McCULLOCH'S
\$100,000
TWIN WIN SAW DRAW
SWEEPSTAKES**

Over 1200 valuable prizes: 325 new McCulloch chain saws to be awarded in local drawings. Plus a national drawing to award a fantastic jackpot that includes an International Harvester Scout, RCA Victor 2-way radio, Savage rifle, GE 17 transistor radio, 17 foot ski boat with trailer and McCulloch 75 hp motor, and a complete Thermos camping outfit; 2nd prize is a new Pontiac Tempest; other prizes include 75 hp McCulloch outboards, RCA Victor home entertainment centers with color TV, automatic garage door openers by Genie, Polaroid color cameras, Waltham calendar watches, Zebco fishing rods and reels, Utica outdoor barbecues.

See your McCulloch chain saw dealer for the details and see the all new MAC-10 Series chain saws, the new lightweight chain saws that make all other lightweights overweight and out-of-date.

You must enter before Dec. 15, 1965, to be eligible for the Twin Win Saw Draw Sweepstakes.



EDITORIALS

by GORDON CONKLIN

DIRTY BIRDS

Hardly a day passes without a letter coming to our Service Bureau from a subscriber who has been pressured by some slick sharpster into signing a contract that later proved to be a gyp. I'd like to knock some heads together over these deals . . . the heads of the dirty birds who take advantage of gullible people, and the heads of the people who meekly sign legal documents without knowing what they say.

Most salesmen are honest, as are most businessmen. But the buyer owes it to himself (and to the person with whom he's doing business) to insist on playing the game according to certain basic, common sense rules that will sort out the good guys from the bad guys, and not tempt the good guys to backslide.

Please do at least these things:

1. Never . . . not even once . . . sign any agreement under pressure, even if you're told that the deal won't be available tomorrow. If it isn't, it will probably be the best thing that could happen. If the hard sell artist tries to wear you out by refusing to leave, throw him out if you're able . . . or sick the dog on him if you're not.

Any reputable businessman will give you time to "sleep on" a decision and choose the alternative that is best for you. Any attempt to hurry you should immediately raise the red flag of warning.

2. Be sure you know what the deal really costs . . . multiply monthly payments times the number of months you're supposed to pay. Dozens of readers have been horrified after doing this, and discovering the wide difference between stated price and total payments. Actual interest rates often figure as high as 36 percent annually on time payment deals; if your credit is any good, your bank or co-operative credit association can provide credit a lot cheaper than that!

3. Check with local businessmen on prices and quality of materials before closing a deal with a total stranger who offers you the moon. All of us have an avaricious streak of wanting to take advantage of someone else. It opens a gaping hole in our armor through which the shaft of fraud or misrepresentation can be rammed home.

We think we'd better grab at that fantastically low price, or that offer to pay us so much for each neighbor we interest . . . before this stupe changes his mind! All the time we're slyly thinking this, he is actually lining us up for the kill.

Local craftsmen and businesses will be around and easily available for a long time . . . their future success depends on doing a good job in your community. Their price may look higher than that of the smooth-talking con man from a city fifty miles away . . . but in the long run that higher price will be the best deal a hundred times over!

Another chink in our armor is pride . . . we hate to admit we really don't understand the proposed contract, or that we really do need advice from several sources before we can intelligently make most major decisions. If we can admit we really aren't very smart, we have taken a giant step toward the goal of avoiding being taken.

When faced with a big-dollar decision on re-siding the house, remodeling the kitchen, building a barn, buying equipment, or what-

ever . . . ask for advice from neighbors, merchants, salesmen, county agents, college specialists, industry farm representatives, your relatives, and anyone else who may be able to contribute to your knowledge. We make huge mistakes because we base decisions on tiny knowledge.

Spend a few bucks for telephone calls to check out the reliability of companies, to learn of the experiences of other customers, etc. . . . it will be one of the best investments you ever made.

My wrath overflows at those *!?! who move in on hospitable people like a wolf on a lamb, fleece them, and go on to the next community. Laws and law enforcement people can help, but your best defense is to take time to carefully think through all major decisions and don't sign until you've done the things I mentioned!

If you want a good book on the subject, get one by Fred Trump, entitled "Buyer Beware!" available for \$3.50 per copy from Abingdon Press, Nashville, Tennessee.

MANY THANKS!

A number of you folks received recently a Farm Equipment Survey form . . . representing an effort on our part to get some answers helpful to advertisers, to readers, and to us. The response to the questionnaire was terrific in terms of percentage return, for which all of us who work at the AA-RNY are grateful.

Ye editor is especially grateful to all of you who sent along notes telling something about yourselves. Some people didn't have much power equipment to report about, but they sat down and took the time to explain the situation. Just goes to prove my conviction that, in spite of the troubles of the world, people are still basically pretty wonderful!

I regret being unable to answer personally all the letters sent in response to our inquiry. I also regret those few instances where someone received a follow-up inquiry even though the subscriber had already replied to a previous one. When a mail survey procedure has a full head of steam, it's tough to turn it off!

It will not be my privilege to have personal contact with each of you who so kindly answered my request for help. But I want you to know I'm grateful for the fact you shared some of your experiences and thoughts. For, as a poet once said:

Instead, I pray for empathy:
Through others' mirth and tears —
I'll add my neighbors' lives to mine
And live a thousand years.

NO LETUP

Ever hear about the economically-underprivileged mother who asked her son which parable he liked best? Johnny replied: "The one about the multitude that loafs and fishes."

In New York State, the public welfare tab in 1962 was nearly 600 million dollars, in 1963 nearly 700 million. Where are we going in providing such vast assistance to those who are unproductive . . . some of whom deserve help and others who are merely lazy?

People who visit some South and Central American countries discover that these nations seem to have an extractive society . . . human objectives center around how best to

extract as much as possible from everyone else. Without emphasis on productivity . . . and in the absence of rewards for productivity . . . the people of those countries wallow in a quagmire of poverty, illiteracy, and illegitimacy. Even some governments are organized for extractive purposes, and one rascal follows another in a dreary procession . . . absconding to live happily ever after on the French Riviera with funds stolen from his own people (and from Uncle Sam).

The differences in standards of living between those countries and the United States is not a matter of magic wands, national resources, or the amount of currency in circulation. No . . . it's a matter of how people think, of the values they believe important, of the basic beliefs held by the majority.

We are seeing within our own borders the gradual erosion of self-respect and individual responsibility. If the Great Society becomes a complete reality as conceived by its architects, in my opinion it will be the concluding chapter in the history of what was once a great nation.

For we, too, are shifting from a people dedicated to productiveness toward a nation emphasizing the ability to extract more and more; the productive people merely have the dubious privilege of contributing more heavily to the comfort of the unproductive. Go visit some of our neighbors in the continent to the South and really take a look . . . outside the plush tourist hotels. Find out how a nation lives when it does not have incentives for productiveness . . . and when its people jockey endlessly for the best position to get without giving.

THE HIRED MAN

Once again I raise my voice in the wilderness to suggest that many farmers could do a better job of personnel management. All too often agriculture is in the Dark Ages when it comes to handling hired help.

I noted one of the exceptions recently when I visited a dairy farm in western New York and read the words appearing prominently on the barn. "Smith Farms, John Jones, Herdsman" . . . the names are fictitious, but the point is that here was a farmer who provided status to his hired man as well as payment in dollars.

It's been my observation that most farmers who are successful on a large scale work hard at human relations. They're sensitive to the fact that everyone . . . and I mean everyone . . . seeks more in life than dollars in the bank. To be treated as a unique individual, to be given credit for honest effort, to be praised for a job well done . . . all these are essential to the kind of morale that stimulates people to deliver their best.

Sure, there are those hired men whose only reaction to such incentives is to try to take advantage of them . . . men whose outlook on life is so wrapped up in themselves that they try to deliver as little as possible and get as much as they can. But there are many instances where better human relations would encourage a fair hired man to become a good one, or move a good one to become a tremendous asset to the farm business.

It's my personal conviction that each of us owes it to our fellow man . . . hired hand, child, neighbor, or whatever . . . to encourage him to grow, to help him see his importance to the life of his time, to provide the appreciation that is the fertilizer nourishing the flower of his life. And it pays off, not only in the broad sense of a more productive society benefitting everyone, but also in the long-run net incomes of farmers hiring help.

Profound changes have come to the technology of agriculture in the last two decades. I nominate personnel management as being a neglected area, one that must also see profound changes in the decades ahead.

American Agriculturist, October, 1965

50% Bigger

More pages of information
than ever . . .

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—more color . . .

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of the Rural Northeast

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LOW COST
PROTECTION
for Total Abstiners

FROM
GOLD
STAR

MEDICAL
(FOR DOCTOR'S VISITS)

20 IMPORTANT QUESTIONS AND ANSWERS
ABOUT THIS VALUABLE PROTECTION

- 1 How Much Will This Policy Pay Me for Surgical Expenses?**
Up to \$300.00, according to the schedule printed right in your policy.
- 2 What Are Some Examples from This Schedule?** For the following, you would be paid these amounts:
- | | |
|-----------------------------|---------------|
| Treatment of Dislocated Hip |\$ 75.00 |
| Appendectomy |\$150.00 |
| Gastrectomy |\$300.00 |

In the unlikely event you should require more than one operation during the course of any single hospital confinement, sickness or injury, Gold Star will pay you the maximum benefit specified for the most expensive one. And, of course, it's all tax-free cash!

- 3 What If I Receive Surgical Treatment Outside the Hospital—Would I Still Be Paid?** Yes. Your policy provides for payments of up to \$300.00, regardless of whether the surgery is performed in or out of the hospital!

- 4 Will This Plan Pay for a Registered Nurse at Home?** Yes. After you have been hospitalized just five days or more, and your doctor has you employ a full-time registered nurse within 5 days of leaving the hospital, we will help pay for such nursing care right in your own home at the rate of \$10.00 a day for up to 100 days. And you need not employ the nurse for one hundred days in a row because this benefit is payable during the 180 days immediately following your hospital stay!

- 5 Suppose I Go to the Hospital but Don't Require Surgery. Will I Be Paid for My Doctor's Visits?** Yes. When you are hospitalized and surgery is not performed Gold Star will pay you \$4.00 per day for each day your doctor visits you in the

hospital—for up to a total of 80 visits or \$320.00 for each accident or illness!

- 6 Can I Collect from Gold Star Even if I Carry Other Insurance?** Of course. This plan (#NLLE-4665R) will pay you in addition to whatever you may receive from any other policies, including Workmen's Compensation.

- 7 Why Do I Need This Gold Star Plan in Addition to My Other Hospital and Health Insurance?** While hospital costs have tripled in recent years, very few people have tripled their insurance. The chances are one in seven that you will require medical care this year—and you will need money to take care of all your other expenses, as well as your hospital bills. Your Gold Star checks are rushed to you by air mail to use as you see fit!

- 8 May I Apply if I Am Over 65?** Yes, you may. Folks any age are welcome to apply—there is no age limit!

- 9 Will My Protection Be Cancelled Because I Have Too Many Claims?** No. Gold Star guarantees never to cancel your protection because you have too many claims or because of advanced age. We also guarantee never to refuse to renew your policy unless renewal is declined on all policies of this type in your entire state. Of course, if deception is used in making application, the policy may be ineffective. This is another way Gold Star protects honest folks who don't drink.

- 10 Will My Benefits Be Reduced Because of Advanced Age?** No. Regardless of how old you become or how many claims you have, your benefits remain the same.

- 11 What About Pre-Existing Conditions?** Any new condition is covered immediately, of course. And, in addition, after your policy has been in continuous effect for just two years, you are even covered for pre-existing conditions! This extra coverage, not usually available at all, is a Gold Star bonus!

- 12 What Is Not Covered By This Policy?** The only conditions not covered are those caused by: the use of alcoholic beverages

LEADING AMERICANS SAY:

GEN W. K. HARRISON, U.S. Army (Retired): "In my long experience in the Army, I have sadly observed the deadly effect of the use of liquor. I see no reason why non-drinkers should help pay the high costs of insurance due to liquor. After examination of the Gold Star Plan and its operation, I am convinced that it is effectively achieving its objectives."

HON. KARL E. MUNDT, U.S. Senator, South Dakota: "Since health statistics indicate that alcoholic beverages have proved detrimental to the body, I believe the Gold Star Plan makes good sense and enables non-drinkers to receive insurance at rates which recognize that those who abstain from alcohol provide an improved actuarial risk."



GRATEFUL POLICYHOLDERS WRITE:

Edward L. Tompkins, MILTON, ILLINOIS: "It is a privilege and a pleasure to be a member of the Gold Star Family. I have called upon them four times in the past three or four years and received full benefits each time."

Mrs. Lucy E. Walters, TRONA, CALIFORNIA: "Your prompt disposition of my two claims within a year has more than justified my expectations. They were taken care of in the exact manner that you advertised. Thank you."

William McK. Spierer, MANHASSET, NEW YORK: "Of all the types of coverage I carry, only yours took into account major medical bills both in hospital and after. Delighted I joined your plan. Every eligible person should be a member."

Mrs. Eleanor H. Reed, MIAMI, FLORIDA: "In my opinion, the Gold Star Insurance Plan is the greatest thing that has ever happened. It definitely rewards those who are total abstainers. The charges on the policies are so reasonable and the amount of coverage is so generous."

Kendall E. Garriott, MANSFIELD, OHIO: "You were very punctual (same week!) in paying our claim. With a family the size of ours this prompt check from you made a great deal of difference. In fact, because of it, we met our obligations on time."

Mrs. Lillian Windnagle, BERGLAND, MICHIGAN: "I never in all my 71 years have had any insurance company deal any more fair with me than De Moss Associates have. No red tape or stalling. I'm ever so grateful to you for your fairness and honesty."

Andrew C. Teachman, MATAMORAS, PENNSYLVANIA: "I was both surprised and delighted at the promptness with which my claim was paid. No quibbling, no nonsense, just a check for the full amount a week after I turned the claim paper over to my doctor for his report. It is the simplest claim paper I ever made out for anything."

Mrs. Mayssel Elva Glenn, MESQUITE, TEXAS: "I have just received my check by air mail. This was paid within one week from the time I sent my claim in, which is remarkable. Also, your fast, efficient service has been given my husband on four different claims for himself within the past year. I highly recommend this company."

Over 25,000 Claims Paid in 1964!

Gold Star Insurance Policies, available, effective and paying claims in all fifty states and many foreign countries, are underwritten by NATIONAL LIBERTY LIFE INSURANCE COMPANY, VALLEY FORGE, PENNSYLVANIA the pioneer and world's largest underwriter of health insurance exclusively for total abstainers. National Liberty Life is licensed solely under the laws of the Commonwealth of Pennsylvania and carries full reserves for the protection of all policyholders.

SURGICAL-NURSE PLAN
(FOR OPERATIONS) (FOR NURSING CARE)

only \$1
FOR YOUR FIRST
MONTH'S PROTECTION

IF YOU APPLY BEFORE
MIDNIGHT WEDNESDAY,
NOVEMBER 3, 1965
WHEN THIS ENROLLMENT PERIOD ENDS

ages or narcotics; mental or nervous disorders; pregnancy; or any act of war. Everything else is covered!

- 13 What Are the Requirements for Membership in This Gold Star Plan?** You must not drink alcoholic beverages; you must not have been refused any health, hospital, or life insurance; you must not have been advised to have an operation which has not yet been performed; and, to qualify during this enrollment period, you must apply before midnight Wednesday, November 3, 1965.

- 14 Why Is This Offer Good for a Limited Time Only?** Because in this way we can utilize group insurance principles and pass the savings on to you.

- 15 Besides the Savings, Are There Other Advantages to Joining Gold Star During This Enrollment Period?** Yes. A very important one is that you do not need to complete a regular application—just the brief form shown below. Also, during this enrollment period there are no other requirements for eligibility—and no "waivers" or restrictive endorsements can be put on your policy!

- 16 Can Other Members of My Family Take Advantage of This Special Offer?** Yes, as long as they can meet the few requirements listed under question 13.

- 17 How Much Does This Medical-Surgical-Nurse Policy Cost per Person?** Only \$1 per person for the first month, regardless of age! Thereafter, premiums for each member are as follows, depending upon age at time of renewal.

When your age is: Your monthly premium is only:

0 - 39	\$1.97
40 - 59	\$3.89
60 or over	\$6.68

- 18 How Does the Money-Back Guarantee Work?** Examine your policy carefully in the privacy of your own home. If for any reason you are not completely satisfied, return it within

ten days and we will promptly refund your money. Meanwhile you will be fully protected while making your decision!

- 19 When Will My Policy Become Effective?** At noon of the day we receive your completed application and special \$1 premium. Of course, it must be mailed before this enrollment period ends.

- 20 How Do I Join?** Fill out the application below and mail it, with just \$1 for each person listed, to: The Gold Star Plan, Valley Forge, Pennsylvania 19481.

TO QUALIFY DURING THIS ENROLLMENT PERIOD, YOU MUST MAIL YOUR COMPLETED APPLICATION BEFORE MIDNIGHT WEDNESDAY, NOVEMBER 3, 1965!
SEND IT TO: THE GOLD STAR PLAN, VALLEY FORGE, PENNSYLVANIA 19481.
Be Sure to Enclose \$1 for Each Person You List on the Application.

APPLICATION TO NATIONAL LIBERTY LIFE INSURANCE COMPANY VALLEY FORGE, PA.
FOR GOLD STAR TOTAL ABSTAINERS MEDICAL-SURGICAL-NURSE POLICY #NLLE-4665R

NAME (Please Print)

First Middle Initial Last

ADDRESS

Street City State Zip

AGE DATE OF BIRTH SEX Male Female

Month Day Year

I also hereby apply for coverage for the members of my family listed below: (DO NOT include name that appears above.)

NAME (Please Print)	RELATIONSHIP	SEX	AGE	DATE OF BIRTH

Neither I nor any person listed above uses alcoholic beverages; has been refused any health, hospital, or life insurance; or has been advised to have an operation which has not yet been performed. I hereby apply for the Gold Star Medical-Surgical-Nurse Plan, form #NLLE-4-6-65R. I have enclosed \$1.00 for each person listed above for the first month's coverage. I understand the policy is not in force until actually issued.

If, for any reason, I am not completely satisfied with this new protection—I may return my policy within ten (10) days for cancelling and my payment will be promptly refunded. If I decide to continue, I may do so at the special Gold Star rates for the attained age(s) at renewal date.

Date NLLE-4A-6-65R

Signature

DUE PAID FOR HOME OFFICE USE ONLY

FIRST CLASS MAIL



RESPONSIBILITY

Some of the older and retired residents who have stopped farming don't fix fences. They claim physical unfitness, but seem to do other things that require physical effort. The nonfarmers moving into a rural area don't seem to feel that they have any obligation . . . but anyone owning property takes on responsibilities other than paying taxes.

It's not fair for one party to bear all the burden of expense and labor to fence against neighbors. Anyone owning property should be required to put up his share of the line fence with wire and posts that withstand the elements of time.

I would suggest that before anyone could record a property transaction at the County Clerk's office, he should get a copy of his responsibilities as a landowner . . . and a notice should also be enclosed with the tax bill that goes out every year. — *Mrs. Emma Ely, Granville, New York*

LINE FENCES

My wife and I have gotten a great deal of pleasure from our hilly acreage over weekends and holidays, and sometimes longer intervals during the summer, but must admit more work than relaxation is involved!

Our neighbor on the west, a dairyman and a fine old rugged individualist, stopped in one Sunday with fire in his eye demanding we fix our part of the fence along the northerly part of our western boundary, where his pasture ran along our woods. Of course I had no need for a fence, but he insisted it was my responsibility, and I finally made a deal with him to fix it for \$12.

This fellow is perfectly honest, and he fixed my fence several times again, and I'm sure did not charge me as much as if I'd brought in outside labor. Later I found it necessary to hire a fence builder for this same boundary line, and over the years it has probably cost me close to \$100 to help this neighbor keep his cows fenced in.

Having been warned in a general way by our easterly neighbor that our portion of the fence needed repair, my wife and I lugged spools of wire and steel posts to this side and spent several sweaty weekends making repairs. On announcing completion, our neighbor laughingly told us that portion of the fence was his; ours was farther north!

We weren't able to get at this part right away, and one day while driving in from the main road I noticed our small patch of sweet corn wasn't standing as high

as I'd remembered. Sure enough, the cows had broken through and eaten every stalk right down to the ground! Our neighbor couldn't have been less sympathetic. "It's your fence," he said.

So I certainly favor any movement which would change the law with regard to fencing. Let those who need a corral for their animals build it at their own expense, and not force neighbors to shoulder the cost of fencing for which they have no need! — *Rural Landowner, Buffalo, New York*

FOR THE PEOPLE

I read with apprehensive interest your column "People For Sale." The teenager pursued by the police, and the relatives of the boy drowned in a city pool, are going to lose their alleged cases. But as to the woman who slipped on her neighbor's steps, so little facts are given, that even a semblance of an authoritative guess could not be made of the outcome.

I hope it has occurred to you that she may well be entitled to \$50,000 or more, as her fall was due to defective steps. Why should she sustain perhaps permanent injuries and untold expense due to somebody else's cavalier and casual indifference?

Your editorial is reminiscent of ads that casualty companies once spread before the public intimating

how shamefully they are treated by all litigants and rather blandly soliciting sympathetic jurors to give them a clean bill of health in litigation. As you know, this practice was declared unethical and they have been obliged to discontinue.

As a practicing lawyer for many years, I have no particular brief for plaintiff or defendant litigants as such, but the more I observe what goes on in our courts, particularly in tort cases, the more I am convinced your complaint could more justifiably be directed toward professional defendants.

As a mere penurious philosophy on the part of some insurance companies, may I merely mention that there is one case pending in court . . . and I do not represent the plaintiff . . . wherein a woman lawfully walking on the sidewalk was struck by an automobile which hopped the pavement, struck her, fracturing several bones in her foot. As you know, this is a delicate part of the anatomy and difficult to heal. She has sustained extreme pain and is crippled for life. The company offered \$3,000. It would be interesting to read editorial columns discussing where frugality ends and larceny begins!

In addition to situations such as this, professional defendants know that it takes five or six years for a civil case to reach trial, particularly since most of our judges sit in both criminal and civil courts, and the increase in crime takes most of their time. The companies take every advantage of this delay and do all they can to augment it.

Several companies will have the one trial lawyer so that he is on trial when four or five or a dozen other plaintiffs' cases are reached for trial, and therefore have to be continued for a couple of months.

When the time comes, the plaintiff will again have to prepare for trial, subpoena and pay his witnesses, and subject himself to other expense. Of course, no interest is paid for delay.

Many years of experience in the courts of Philadelphia have indicated to me that there is a streak of inhumaneness in most insurance companies. Let me suggest that you should not aid and abet them in pulling their avaricious chestnuts out of the fire by approaching jurors before they are called for jury duty.

Let them face the honest facts and pay proper claims in proper amounts for which they have collected premiums. After all, when premiums are paid and claims are not, the insurance companies are unjustly enriched out of the pockets of everybody . . . as you say, "all of us pay." — *F. Raymond Heuges, Philadelphia, Pennsylvania*

FARM PROGRAM

I have often said that if a reduction in the farm production and the number of farms is needed, the most logical place to begin is with the older farmers. Dean Butz of Purdue has suggested retirement for small farmers at 55 years of age, rather than 65 when Social Security now starts, but he does not seem to realize that few small farmers can afford to retire on Social Security. If their income has been small from age 55 to 65 they can qualify only for very small Social Security payments which would not cover expenses.

I would suggest a three point plan:

1. Abolish or revise the Soil Bank program to eliminate abuses.

2. Set up a liberal retirement program which would be available only to bonafide farmers who have spent a specified number of years on the farm and who have reached retirement age. (This could be set at less than 65 years. Health and some other factors might be considered.)

3. Tie the program to an overall plan of rural landscaping, scenic and recreational development. This would require that the land be kept mowed or reforested and buildings be kept in repair or removed, so that the farm would improve rather than mar the landscape. This would give the farmer some work to do and would give him the feeling of helping in a worthwhile project.

We spend millions to increase production . . . and then spend more millions to dispose of the surplus! We spend millions to landscape our highways . . . and then allow tumbled-down buildings to ruin otherwise beautiful scenery. We spend huge sums on rehabilitation, the war on poverty, and relief . . . and then allow hard-working farmers to be forced out of their homes when they can no longer do two days work in one.

There is a need for more campsites, picnic areas and scenic drives. All this could be tied into the farm retirement plan. — *Mark Sanford, Little Genesee, New York*

American Agriculturist, October, 1965



MORE UNUSUAL YOKES

Here are two unusual ox yokes, owned by James A. Keillor, Hillcrest, Wading River, New York 11792. They are called "breaching" yokes; Mr. Keillor would appreciate information about them. He received, by the way, 220 letters from readers when we ran a picture some time ago of another yoke.

Here is what he wrote about them:

"You will note that in photo-

graph A the metal in the center is well scarred, which would indicate that this must have rubbed against something . . . and that the chains on the right and the left are of two different thicknesses.

"Photograph B could easily be mistaken for a single or double tree, yet we are assured it is a breaching yoke, and the placement of the rings indicate that it is not used as a single or double tree and our information that it is a breaching yoke is probably correct."

I can't wait to tell
my friends about
this delicious new
peanut flavor!

You won't
have time!



NEW **RATicate*** FOAM BAIT KILLS RATS —AND ONLY RATS—IN ONE FEEDING

Ever shaved with a can of foam lather?

If so, you already know how easy it is to kill common brown rats with amazing new RATicate* Foam Bait.

Take off the cap. Shake the can and turn it upside down. Press *gently* on the side of the plastic nozzle. You've just set a bite-sized flavor trap that smells and tastes like peanuts. (Rats love peanuts.) One moist, tempting puff is plenty to kill the toughest rat alive in as little as 15 minutes. You've never seen such a little squirt do such a big job of killing rats.

And there is enough active ingredient in one little 2½ ounce can to kill 35 rats! It says so on the label.

When you compare rat-killer products, remember that those bulky old-fashioned baits need 4 and 5 feedings over several days to get the job done. RATicate* kills in *one* feeding—in less than a day.

Don't let the small can bother you. It's real easy to handle—and it can kill an amazing 140 times its weight in profit-stealing rats! And each foam puff stays deadly to rats for days.

And RATicate* kills *only* rats. It won't kill dogs, cats, chickens or any other animal on your farm. You don't have to protect bait stations with boxes, cages or boards.

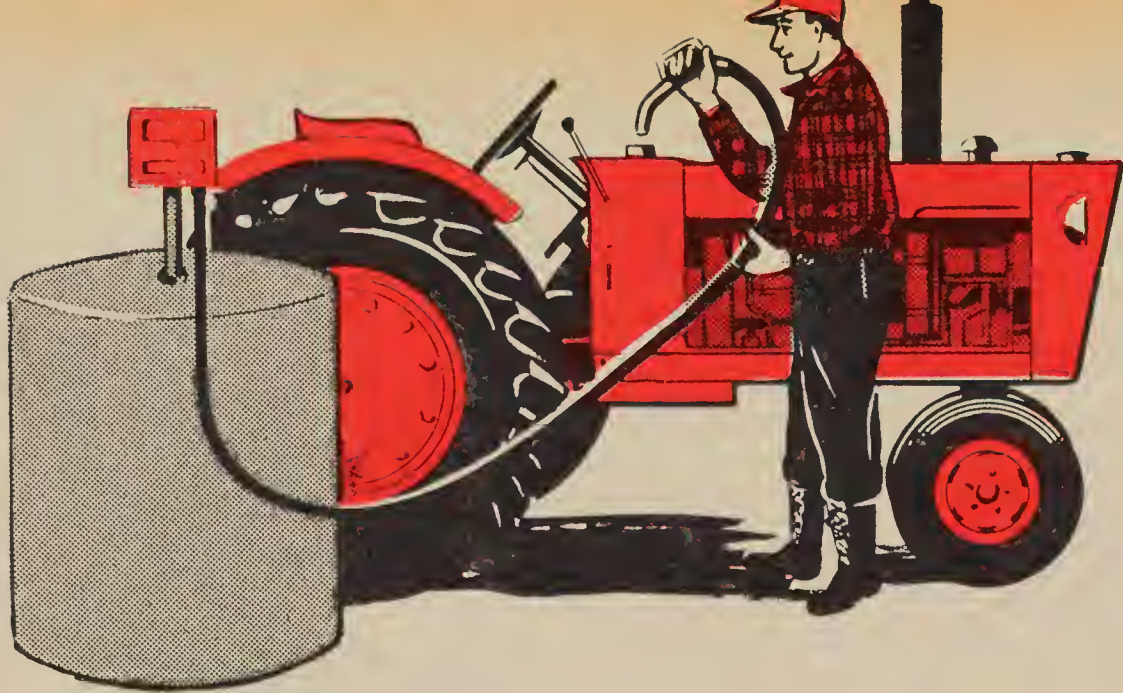
Don't waste your time messing around with bulky box baits. Don't let rats run loose for days on end while you wait for slow acting baits to work.

Now that rat killing time is here, ask your dealer for a powerful little can of new RATicate* rat killer—the modern *concentrated rat bait*. When you price it, divide the price by 35 dead rats. It's easy to see why RATicate* is such a good buy!



NEW, TOO! RATicate* TRAYS! RATicate* Bait Trays come in handy, pocket-size box. Each box contains 10 ready-to-use individual trays of grain bait—enough to kill 10 rats.





TRACTOR FUEL STORAGE

by Wes Thomas

FUEL FOR YOUR TRACTOR and machinery engines may account for 5 to 7 percent of your total farm operating costs. Poor storage and handling facilities can waste fuel, impair engine performance, increase maintenance costs, and cause serious accidents.

This article discusses storage and handling procedures for both gasoline and diesel fuel, which will enable you to reduce unnecessary losses and at the same time make your operation safer.

Gasoline

In one series of tests in which a 200-gallon average supply was maintained and 200 gallons withdrawn per month, the following evaporation losses occurred:

1. In 50-gal. vented drums 30 gal. loss
2. In a 290-gal. vented tank (elevated) 11 gal. loss
3. In a 290-gal. buried tank 7 gal. loss
4. In a 290-gal. elevated pressurized tank 3 gal. loss

Don't try to reduce evaporation losses by placing storage tanks inside a building. This increases the possibility of fire . . . and may even void your fire insurance. Most safety codes recommend that gasoline storage tanks be at least 15 feet . . . and preferably 40 feet . . . away from any building.

However, losses can be reduced by the use of a pressure cap on the tank. Gasoline in a tank has a tendency to evaporate and build

up pressure. If this pressure can be held at 3 pounds per square inch by means of a pressure cap, the evaporation is greatly reduced. No gasoline tank should ever be sealed without some means of pressure relief; the pressure that can be built up by a rise in temperature can burst the tank. The pressure relief valve (which your gasoline delivery man can generally supply) attaches to the regular vent opening. The filler opening is tightly closed.

The pressure within the tank also increases with higher air temperature. As soon as the pressure gets above 3 pounds per square inch the relief valve opens, and remains open until the pressure again drops to 3 psi. A vacuum relief valve is also included in this device so that air may enter the tank as it cools in the evening and the inside pressure drops. This vacuum relief valve also allows air to enter the tank when you are withdrawing gasoline.

Reducing evaporation losses helps preserve the easy starting qualities of your gasoline. The more volatile portion of the gasoline makes for easy starting, but it also is the part that evaporates first in storage. Gum content of gasoline also increases with excess evaporation, and this excess gum tends to clog fuel lines and carburetors.

Water in fuel tanks is a very common source of trouble. It is formed by condensation, and pressurizing the tank also helps reduce it.

Considering all the factors involved, underground storage is

probably best for the large volume user. The savings in evaporation losses will offset the higher initial cost of the tank and pump. The uniform temperature of the earth surrounding the tank reduces evaporation losses caused by temperature variations.

Before burying a tank, be sure it is coated with asphalt or tar; this will greatly increase its life. Use clean, fine sand to backfill next to the tank. Do not use cinders; moisture in the soil will leach acid from the cinders, which in turn will attack the metal of the tank.

The underground tank should be located away from wells and sewer lines. Any leakage from it would ruin nearby wells, and if leakage reaches a sewer it may cause fumes to travel back to a basement or a milk house.

Overhead Tank

In smaller volume storage, the overhead tank is probably the best bet. A good sunshade built over the tank will help reduce mid-day summer temperatures; tests indicate that this will reduce evaporation losses by as much as two-thirds. Shade trees are fine for summer protection.

But shade is also needed during the winter months. Petroleum companies supply a more volatile gasoline in winter for easier starting; so evaporation is a problem even during cold weather. The pressurized cap is the best means of reducing losses in the above-ground storage tank.

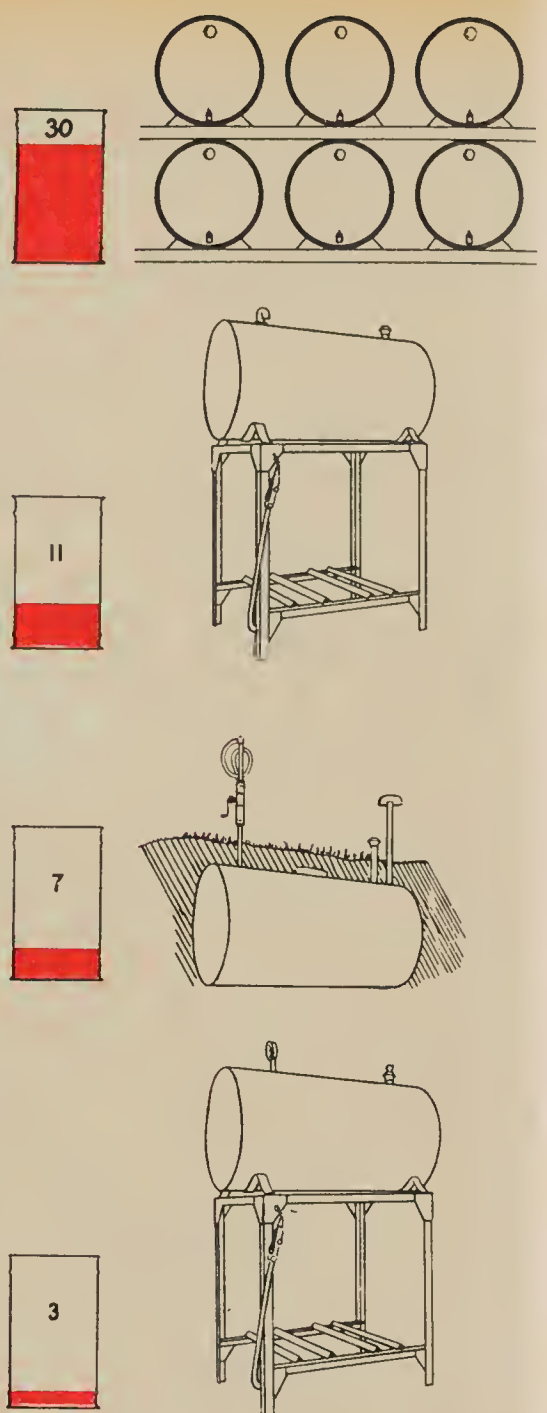
It's a good idea to tilt the tank slightly so that the outlet end is higher. In this way any water and sediment can collect in the opposite end. The accumulation should be drained at least once a year.

Having your storage tank filled more often is a good way of helping to keep down evaporation losses and maintaining better-quality fuel. Most delivery trucks operate on a regular schedule; have your tank filled each trip. Not only will you be sure of an adequate fuel supply, but you will also have fuel matched to seasonal requirements.

Safety Precautions

Here are safety recommendations for gasoline handling that may save your life:

1. Keep matches, smoking, open lights, or flames away from gasoline.

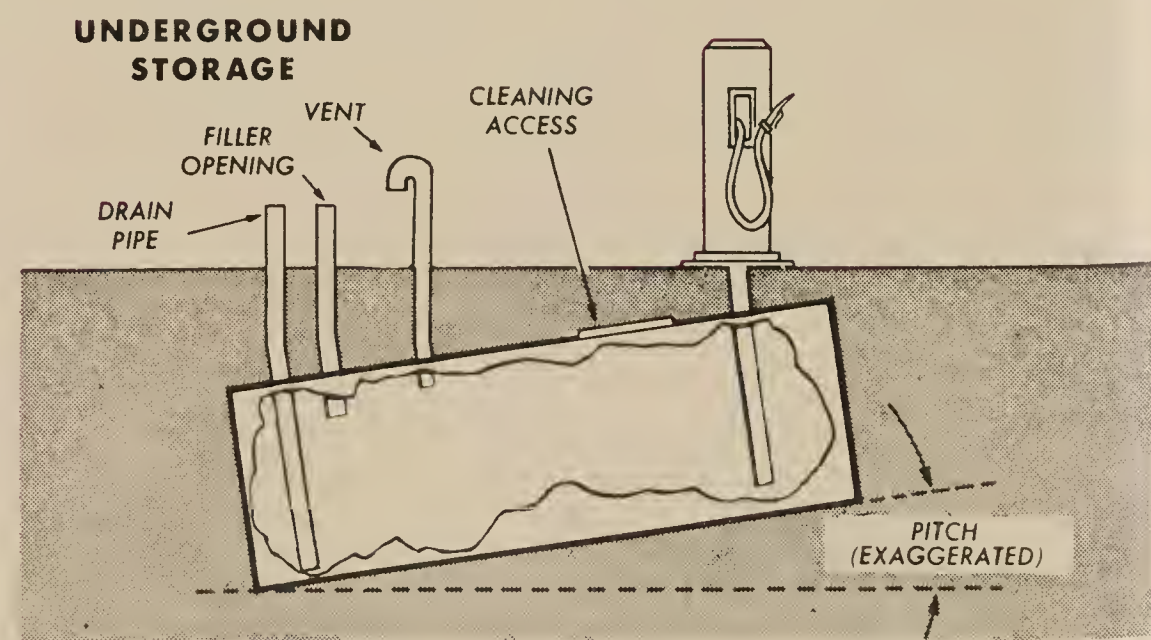
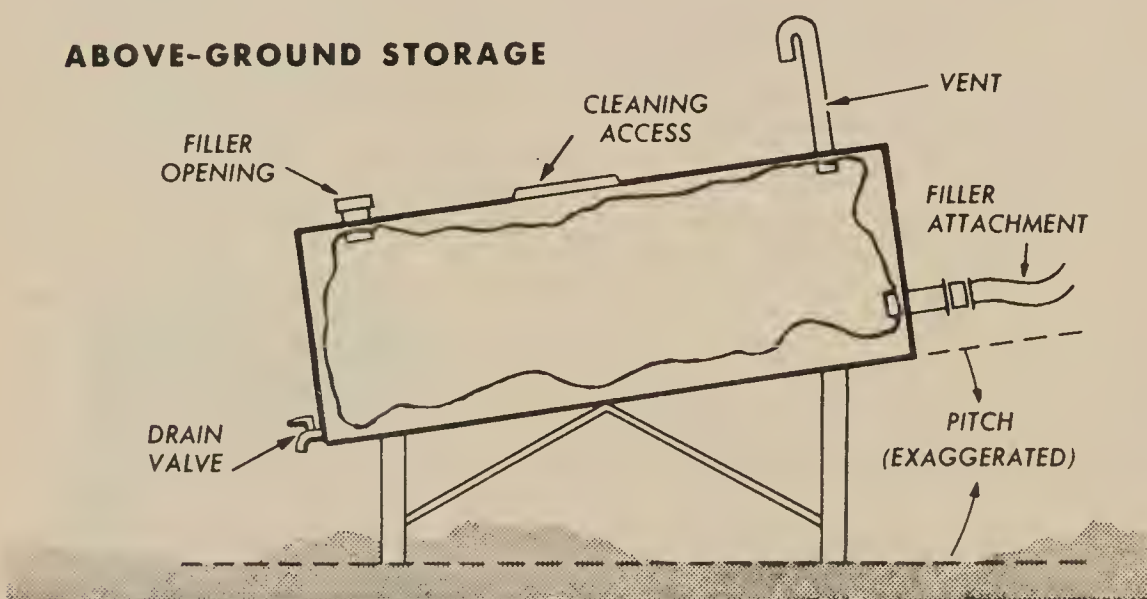


Note different amounts of fuel lost from various storage systems, from top: 50-gallon drums, regular above-ground tank, regular below-ground tank, and elevated tank with pressure valve.

2. Turn off the engine before re-fueling. If possible, wait until the engine has cooled.
3. Make certain that the hose nozzle is in constant metal-to-metal contact with the tank that is being filled.
4. Elevated tanks:
 - (a) Check stability of tank supports.
 - (b) Equip and maintain internal check valve at tank outlet.
 - (c) Equip and maintain self-closing valve at discharge end of tank. This valve will close automatically in case of fire.

5. Tanks with openings on top:
 - (a) If on ground, support bottom of tank on timber

(Continued on page 27)



Removal of water and other contaminants is made easier if storage tanks are not level.

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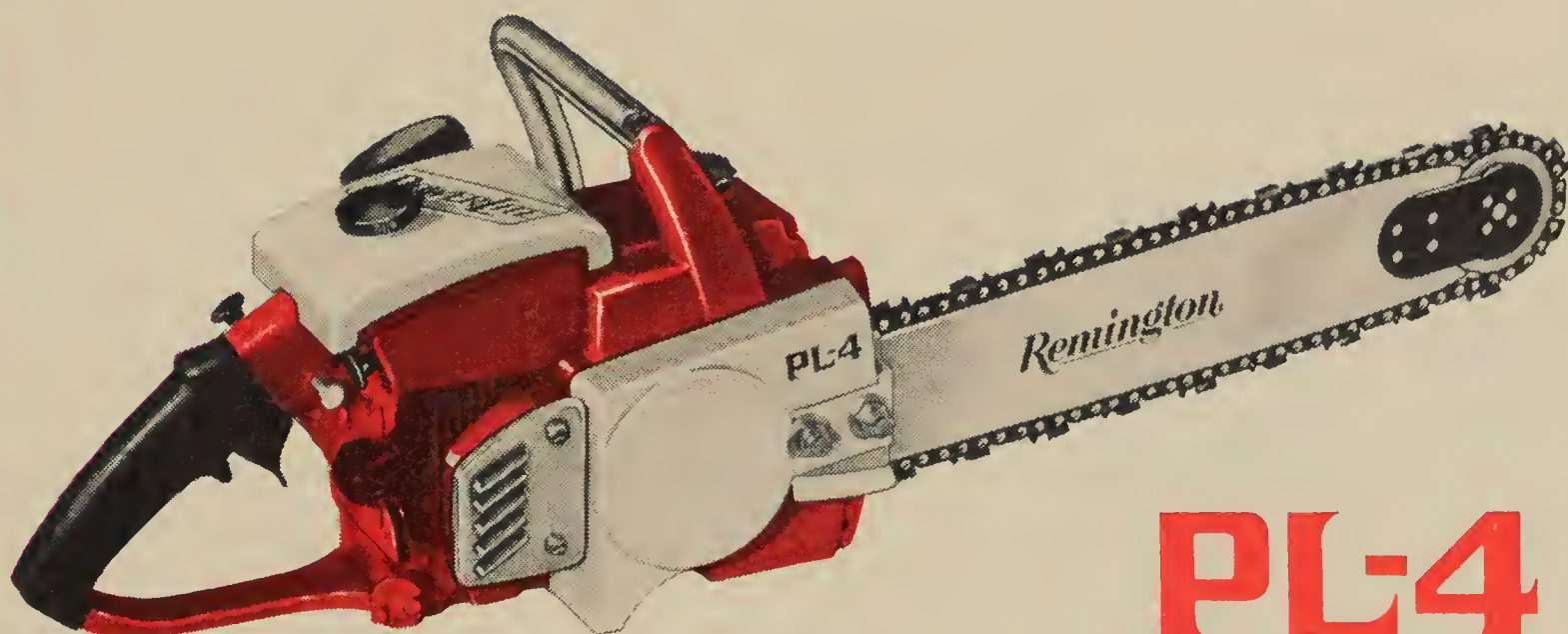
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Gayway Farm Notes

by HAROLD HAWLEY

MIXED GRAIN

It wasn't planned that way, but we had a little barley mixed with our wheat this year. A year ago we decided not to seed in barley, as it usually lodged if we fertilized it heavily. If we were to get enough hay seeded we, therefore, had to follow barley with wheat and seed in wheat. So last year we nitrated the barley heavily and went for top yields, then plowed down the stubble and sowed wheat last fall. Some barley volunteered in the wheat. While it ripened ahead of the wheat, it still was around to be combined along with the wheat.

If we were selling the wheat for milling it probably would contain more than the 4 percent foreign material that is allowed. Inasmuch as we don't sign up for the Government wheat program, all our wheat goes at the market price. We can, therefore, get more for it by selling directly to a poultryman, or even to a dairyman who recognizes that some wheat for cow feed is a pretty fair buy. At any rate, the presence of a little barley in it won't hurt us, but might be bad news if we were trying to sell wheat in commercial channels.

Another little worry we've had about following barley with wheat was whether we might run into some "take-all" disease, as sometimes used to happen when wheat was grown after wheat. So far this hasn't happened, so we are going to follow the same procedure again this year.

TWO CROPS OF OATS!

Our oats were windrowed, wilted, chopped, and ensiled along in early July — just as they nicely headed out. Even dry as it was, the oats grew again and it looks as though there will be a little chore for the combine to do shortly. The yield won't be enough to do much bragging about, but certainly two crops of oats beats one . . . and might even make oats break into the profit column for a change.

HAVE A PLAN

Someone used to always be saying "Plan your work — then work your plan." As we hear folks discuss their intentions of building a barn, I'm more and more convinced that here is a place where there had better be a plan . . . and a pretty detailed one . . . before much ground is broken or much concrete poured.

We built an addition on our old barn a few years ago and mostly kind of planned it as we went along. As a result, a few

things didn't end up just right. That addition was pretty simple compared to starting from scratch to build a barn, milking parlor, feeding set-up, etc. as many are doing and planning to do. Considering the money involved it would certainly pay to do a lot of planning and sketching beforehand. In fact, I think most of us would benefit immensely from the services of an engineer or a competent builder in getting our ideas down on paper. After seeing the planning that went into our new barn and how much better the results were because of it, I'm sold on the notion of having some specialized help. Likewise, people in the business know a lot more about materials and equipment than most of us who build infrequently can possibly know.

CONGRATULATIONS TO GORDON CONKLIN

In his modest way, Gordon has said almost nothing of the high honor and recognition he received when the Freedoms Foundation Award was presented to him. Such awards aren't given freely or lightly. The award was for editorial defense of the United States and what it stands for.

You, his readers, know of his willingness to speak out on all manner of controversial issues, and of his pride and belief in the principles of Americanism. I am sure that you, like me, have been pleased at his forthrightness and are proud to call him friend.

Surely all of us are happy to extend our congratulations to him for this well-deserved recognition.

SOME OBSERVATIONS

Our vacation trip West left us a little puzzled. Figure these out if you can. Thruway speed limits were as follows: New York, 65 M.P.H., Pennsylvania 60, Ohio, Indiana and Illinois 70, Iowa 75. So, how fast is fast . . . and how fast is safe?

We were interested to see that fines for littering are as variable — \$50 in New York, \$100 in Pennsylvania, and \$500 in Ohio. And we noticed some interesting signs. Indiana lists their tollroad as the "mainstreet of the Midwest." Seen on the Union Pacific railroad: "Don't be curt, be courteous." Then there was the whisky ad on a billboard in Nebraska "Best shot in the West." And Wahoo, Nebraska, is "a city of good Indians without a reservation."

We got a real thrill from the alfalfa-dehydrating, pelleting industry up the Platte Valley (Route

30) in Nebraska. The companies buy the hay on the stalk for the entire season. The farmer irrigates and fertilizes, and gets \$9 per ton (15 percent moisture basis) on the stalk. The company direct-cuts and chops it, and blows it into trucks, which haul it to the mill where it is dried and pelleted. This is a 24-hour-a-day process, with truckloads of green chopped alfalfa moving all the time. Four crops of hay are common with protein as high as 25 percent. Because of excessive rain, this year's harvest of second-cutting was way behind, and protein was down to 15 percent.

We watched one crew cutting in a 400-acre field of alfalfa which was hauled 18 miles to the mill. The interesting thing was that each company seemed to have different styles of truck boxes. All had hoists, but the variation in tailgates was remarkable.

At night these mills are spectacular. The light from the big gas furnaces which dry the hay can be seen away off. The steam and smoke also are a skyline feature for miles. The really fine odor of the alfalfa being dried can be smelled 2 to 3 miles downwind. One could follow his nose right to the next mill almost as one can smell popcorn from afar.

Carloads and truckloads of the pellets leave these central Nebraska communities for almost every livestock area in the country. Irrigation water plus abundant sunshine have made it possible for one of these little towns (Cozad) to claim that it is "the alfalfa capital of the country."

Out in the beautiful, bountiful valleys east of the Great Salt Lake, we observed the sign which said that "He who gives the right of way lives to drive another day." We liked that better than the one in DuBois, Wyoming, which asked that people not "drive like hell through God's country."

The three things that impressed me most from an agricultural point of view, aside from the unbelievable crops this year all across the country after one leaves New York, were the labor-saving innovations in the feedlots, the sharp increase in the use of irrigation equipment, and the higher percent of land in soybeans than I can remember. It was downright discouraging to come home to our drought-reduced crops after seeing the corn in Indiana, Illinois, and Iowa this year.

Feedlots

We visited some cattle feeders and were impressed at the various ways they handle feeds so that one man can feed 800 to 1,000 steers in an hour or so per day. Feeding devices include augers, conveyors, forage wagons, and many other things — all aimed to reduce labor. One feeder drove his loaded silage forage wagon under a bin. A lever was pulled to drop down rolled corn and protein in measured amounts into a box, which then spread it on top of the load of silage. With this gadget, all a hired man needed to know was how many boxes of corn and how

many of protein per wagonload went to each pen of steers . . . and that knowledge was shown on a chart on the wall. Actually, a neighbor could come in and feed his cattle in a pinch without much instruction.

One set-up featured 4 silos in line, with an auger taking silage from the chute in front of each one. This auger raised the silage up about 10 feet where it dropped it into a hopper. The hopper fed a 100-foot auger which swung in a complete semi-circle and dropped silage into a bunk at the other end of it. The bunk was, of course, arranged in a semi-circle and cattle fed from both sides of it — about 500 in all. This was about the slickest thing I ever saw. Of course, shelled corn and protein were added back by the silos.

Irrigation

One doesn't think of Illinois and Indiana as being dry enough year in and year out to need or justify irrigation equipment for corn or soybeans. This has been a year of bountiful rain there, yet we saw a lot of water being pumped on the crops. Some of this water also contained fertilizer. It's all part of the effort to push yields ever higher. These big booms they have, some 100 feet long, sure put out a lot of water . . . but must be headaches to move and re-set.

In Nebraska there were many more rigs pumping water from deep wells (1,000 to 2,000 feet) in 8 or 10-inch pipes. Furrows are plowed across the ends of fields and small siphons lift the water from the furrows and into the rows. Of course, many irrigate with the big booms here, too. This has been a great growing year in Nebraska, but it didn't take much looking to see which fields were irrigated and which were depending on Mother Nature. The same applied to alfalfa fields. A third crop was being harvested in late August where irrigation had hurried re-growth.

We were intrigued by another feature of the Nebraska cropping program in the Platte Valley. There has been a very sharp increase in the acreage of milo for grain; it has become as important as corn on many farms. With the serious drought back home we kept asking ourselves whether such an investment in well, pump and pipe, not to mention labor to change the pipes and water, would pay us. Of course, irrigation works better and is easier to engineer on level or gently-rolling land, but there probably is no limit to what one can do if the results justify the effort and cost.

One of the interesting things about this Mid west irrigation is the fact that they go down until they get the quantity of water they need. The well drillers use jet drills and can put a well down in a fraction of the time it takes to hammer a bit down through the soil and rock.

Soybeans

The acreage of soybeans has jumped mightily throughout the Midwest if one can believe his

(Continued on page 25)

American Agriculturist, October, 1965

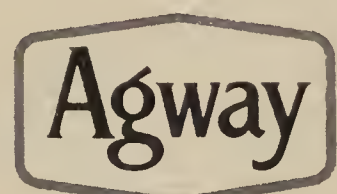


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PLANNING FOR RETIREMENT

by D. M. Babbitt

MUCH IS BEING said and done these days for the well-being and contentment of our senior citizens. Statistics show that one out of every twelve people in our nation is over 65 years of age — and farm ownership in the Northeast is largely in the hands of those past 50.

There has been a vast change in care of the aged since the turn of the century. While most counties had welfare homes (under less attractive titles) families considered it their responsibility to look out for aged parents or other relatives — or even for close friends, as long as care was needed. Neighbors helped neighbors when someone was needed to “sit up” during a long night with a critically-ill loved one. Hospital beds and nursing home care were not generally available — and if they had been there wouldn't have been the funds to take care of the bills.

Now the care of the older members is becoming more and more the concern of society. Congress wrestles with medicare bills and poverty programs; Blue Cross and insurance company health policies are being tailored to make health problems less of a worry to the aging.

Income Sources

Regular sources of income are available to most older couples nowadays through social security, pensions, annuities, interest and dividend payments on securities, savings accounts, mortgages, and other investments.

Some find part-time employment, like one of my college classmates who has taken up substitute teaching in the local high school. He finds the opportunity to serve the community interesting as well as remunerative — even though at times he is called upon to take

charge of a class in Greek, or some form of math which wasn't in his college curriculum!

Social security benefits are available to most employed people, including the self-employed, at retirement age. But they must be applied for — three months ahead of when you plan to retire. Your local social security office will be glad to advise you on benefits payable and the procedure necessary to file a claim.

Today many wives are earning their own social security credit. On retirement, the wife can choose to take either her own credit, or that to which she is entitled as the wife of a retired man drawing social security benefits. In the case of both husband and wife, earlier retirement cuts the benefit. At 62, one draws about 80% of the amount that would be due at 65; for each month after 62 until 65 there is a corresponding increase in the benefit up to the maximum to which one is entitled.

Some Social Security changes were made by Congress in the 1965 session; a summary of these changes (including Medicare) can be found on page 22 in an article accompanying this one. The rules on amounts that can be earned by retired people without losing benefits have been liberalized and several other major changes have been made.

Apart from social security, it's good planning to have a nest egg for emergencies. Many have made plans to take care of most sickness with insurance. Better health insurance is being provided for the elderly, and should be studied carefully; some of the plans are very practical.

Farmer retirement doesn't mean the over-use of the rocking chair or thumb twiddling. The most

ideal type in my experience is the outgrowth of a good working father-son partnership agreement. Of course, many are mother-son, uncle-nephew, parent-daughter arrangements — or even no family relationship whatsoever.

Farmer and Retirement

The working father-son agreement which the Agricultural Economics Department at Cornell University suggests — and assists to put into operation — gives a junior partner an unusual opportunity to work into management and ownership while the senior partner is easing off in management and work responsibilities. During the early years of the agreement the senior partner contributes a major portion of the capital and management and a fair share of labor. In a few years the picture changes and Mom and Dad receive regular financial income from capital invested in the home farm (usually mostly real estate) which they can look at every day they are home. They have days off when they feel like visiting grandchildren away from the home community.

The junior partner likes this setup, because it has made it possible for him to start in where Dad left off. During the busy summer months he's very glad to have Dad get on the seat of the new 5-bottom tractor, with power steering and starter, and all the other conveniences. This modern machine makes it an easy way for a well-trained “hired man” to accomplish the maximum output in a day; it's real fun for Dad, and a pleasant excuse to get out from under Mom's feet.

If, however, no one is coming along to take over and there is a lack of desire to make large investments, many farmers are selling

out as they grow older. Costs of operation and overhead are too high, or the income is too low — or both. To make the farm modern enough to support a \$5,000-per-year hired man would require too heavy a debt load.

The sale of the farm can make income for the “golden years.” Maybe there could be an investment in the form of a mortgage on the home farm given by the new owner, or an investment in securities, or a life annuity. Occasionally there's the opportunity to make the sale by contract over a period of years. This usually saves on income tax — and many times brings a better price; it is becoming popular in some sections of the country, and should be given consideration. Your lawyer and the county agent can help with advice.

A form of semi-retirement which makes it possible to slow up in effort and responsibility could come from a change in the character of the operation. A dairy or poultry farm, for example, could give way to cash crops, meat animals, or raising dairy heifers. The reduced income usually covers the major portion of the overhead, provides some of the living expenses, and more free time to enjoy the autumn of life.

Retirement And Country Life

Rural communities have many people from industry or the professions who have had to retire at 65. They usually bring to the community something in the way of retirement income, in addition to social security — and interest and dividends from years of putting something away for the rainy day. They may live on a one-acre lot or a 100-acre farm. Usually, at least, they have a good garden — and often some form of livestock that saves on food budgets.

These new people affiliate themselves with the new communities. Many get on the local school board; others are concerned with township and county politics. One ambitious retiree successfully made the grade for the state legislature. They bring with them a lifetime of valuable experience, and have the time and interest to devote to church, hospital, welfare committees, and fund drives. The Grange has proved to be a wonderful opportunity to get acquainted and enjoy group activities — tours, flower shows, and the like. The changing rural community likewise needs this new interest and enthusiasm.

It's Later Than You Think

The autumn of life makes us realize that our houses should be “put in order.” A most important part of this is a will. Everyone who owns property — real or personal — regardless of age, should have one, and keep it up to date. Wills and insurance policies should be reviewed at least once a year to make sure that wishes for the disposal of property are tailored to present conditions.

A death, a marriage, a new child, a crippling accident, a change of witnesses, a purchase or sale of property, or a change in your financial status may make a new one advisable. The safest way is to have a new one drawn,

(Continued on page 22)

American Agriculturist, October, 1965

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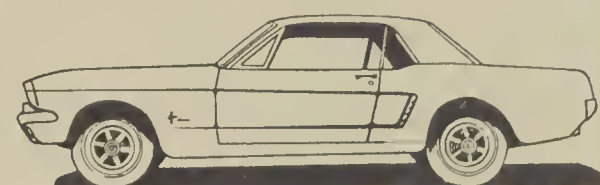
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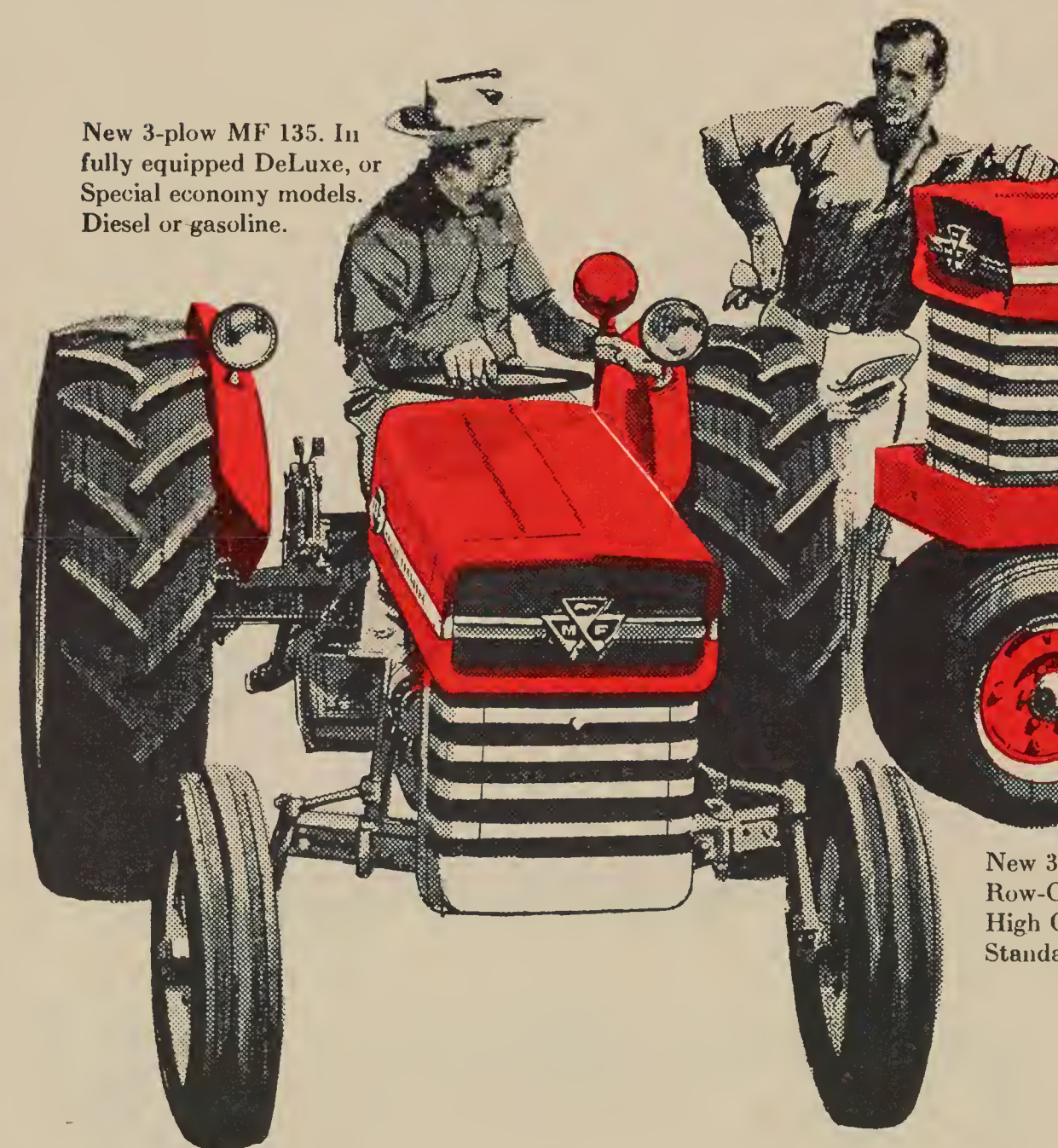
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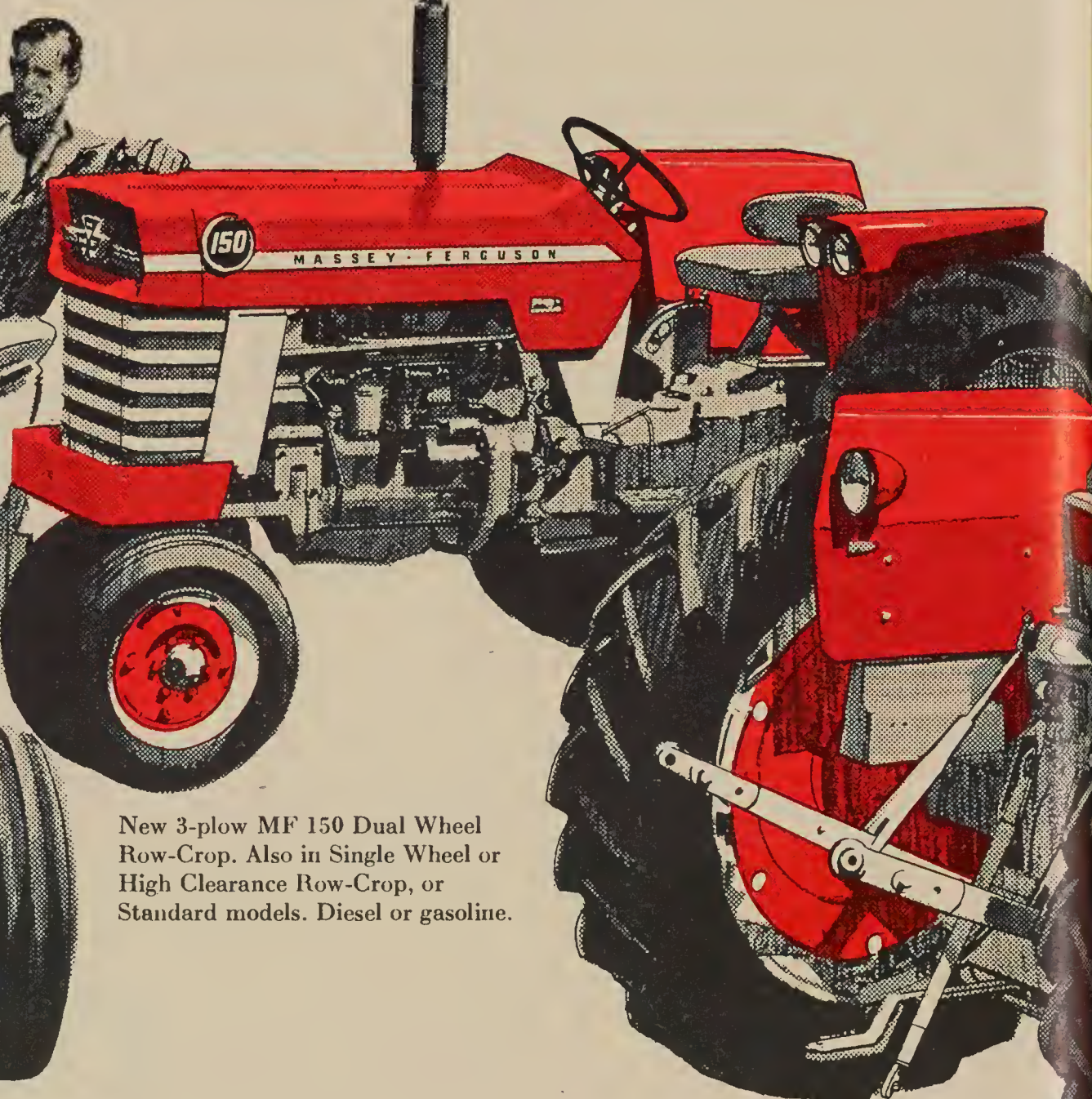
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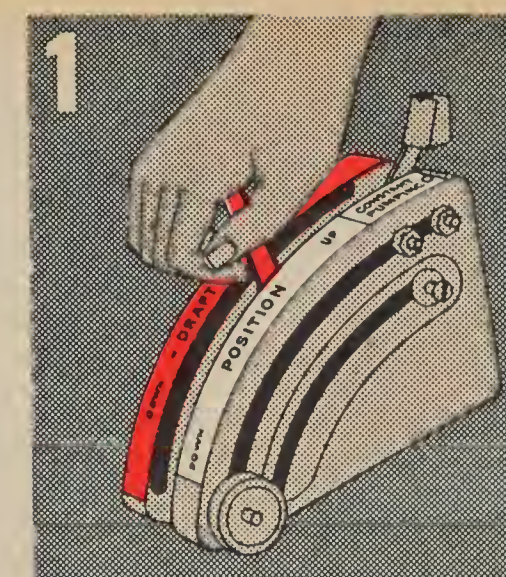
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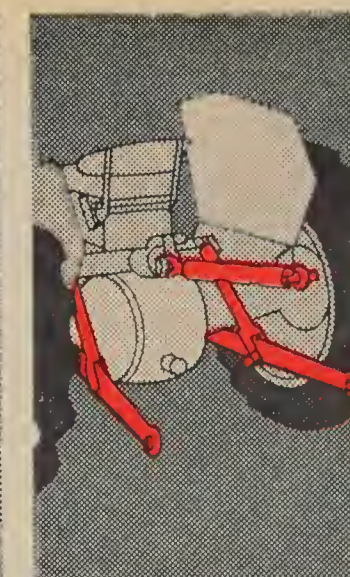
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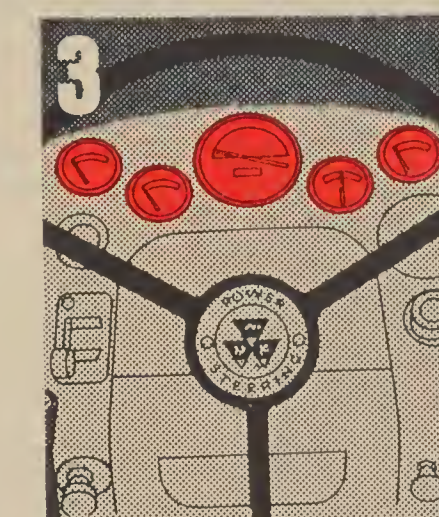
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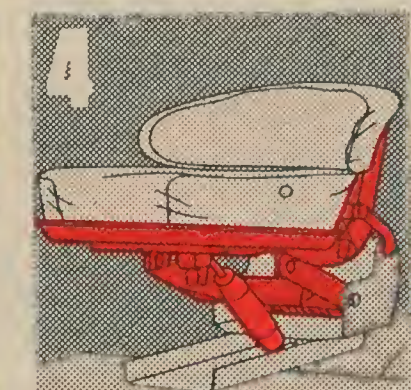
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The Question Box

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I have been using continuous lighting for my laying hens. Except for the obvious savings in electricity, are there any problems associated with continuous lighting?

There is no real problem in giving your laying birds continuous light except as you have indicated the economics involved, and this probably would not be very serious with a small flock. There is one slight possibility that this may be a disadvantage in that when birds go into a minor slump for which there seems to be no particular reason, by increasing the light we can sometimes stimulate the birds to increase in production again.

For this reason we normally advocate starting with 12 or 13 hours of light and then gradually stepping it up to about 16 hours. There is no economic advisability in giving more than 16 hours of light, as we apparently get no stimulation beyond this point.

There is a factor involved in lighting that is fairly important if one is not using a full 24-hour light period; that is, we must bracket daylight to avoid natural lighting affecting the increase or decrease in stimulation. As an example ... after June 21 or there-

abouts days continuously get shorter, and if we do not use evening lights, even though the birds might be getting 16 or more hours of light by having extra light in the morning, they would still be experiencing a continuous decrease. This could cause the birds to be affected and thereby slow down in egg production.

For this reason, when one is not using continuous light we prefer to have the lights come on in the morning ... say at 4 or 5 o'clock and then turn off at 7 or 8 in the evening so that we are bracketing daylight.

One way, of course, that you could control your lights without doing this manually would be to use a time clock, which would turn the lights on at say 4 or 5 in the morning and then turn them off at 7:30 or 8:00 ... and then the clock would turn the lights on again in the late afternoon and off at 7:30 or 8:00 in the evening. This is a common practice with commercial flocks.

In fact, we have some operations where the lights come on at 4 in the morning, and then a photoelectric cell takes over and turns the light off when the inten-

sity becomes adequate in the poultry house; in the afternoon when the intensity decreases the photoelectric cell turns the lights on again and the clock turns them off at 7:30 or 8:00 p.m.

We have one rule of thumb that we feel is rather important and that is we should never decrease the number of hours of light during the laying cycle, nor should we ever increase the hours of light during their rearing cycle. — Charles E. Ostrander, Cornell University

Can high-moisture mature ear corn be stored in a conventional silo?

Yes, if you are careful. Silo should be tight, including doors. Pack silage and cover with plastic on top. In a conventional silo, you will need to feed a 2 to 4 inch layer every day to prevent spoilage.

What is the highest moisture content at which corn can be stored in a crib?

Up to 35 percent moisture, if the crib is not over 4½ to 5 feet wide.

Creosote has leaked through joints of my cement block chimney, and streaks have run down the outside. Is there any paint that will cover the creosote?

There is no paint, to my knowledge, that will satisfactorily cover creosote. This has been one of the problems of the wood preserving industry, where creosote is one of

the most common materials used in pressure treatment of poles, timbers, and lumber.

The only remedy ... and a difficult one to achieve ... is to restrict the formation of more creosote through burning dry wood and maintaining a hot enough fire to keep the tars and oils in a vaporous condition. Where a small wood fire must be kept at low ebb overnight, this is a most difficult job. There is always more difficulty with an outside (exposed) chimney than one inside a building; both from standpoints of cooling the tars and also from being exposed to view.

You can gain a little by cutting out the leaky mortar joints and replace the mortar, using a rich mixture 1 to 2 parts of cement and sand, and packing it in as tightly as possible. You will thereby force the tars to run down the inside of the tile liner ... but it is most difficult to obtain a tight chimney. Another alternative is to line the outside of the chimney. — E. W. Foss, Cornell University

Why are my donkeys chewing wood lately? They are doing a good deal of damage and I am wondering what I can do to prevent it.

Generally speaking, there are two reasons why any equine eats wood. One is something missing from the diet; the other is just plain boredom. Provide them with all the ground salt they want plus a sepa-

rate container with a good mineral mixture. These mixtures can be obtained from practically any feed store, but special care should be taken in selection. Make sure they contain calcium and phosphorus on a one-to-one basis, certainly no more than a two-to-one or one-to-two basis.

In most parts of New York State it is also advisable to have a little selenium, some iodine and iron. Under most conditions, these will all be present in a good mineral mixture.

By providing the mineral mixture in one box and the salt in another, wood chewing should be completely alleviated. If not, check on the rest of the ration ... it could be that these donkeys are eating wood because they are hungry. Provide three pounds of high quality hay per day for each 100 pounds of body weight.

Parasite infestations, particularly those of bots, can reduce the efficiency with which an equine can utilize its feed. If your donkeys have not been wormed within the last year, consult your veterinarian. There are a couple of good worming compounds on the market which can be mixed with the feed.

I plowed an old pasture and now a lot of quackgrass is coming up. Next year I would like to plant potatoes. What would you recommend sowing on this land in order to get rid of the quackgrass?

My recommendation would be to grow sweet corn or field corn, American Agriculturist, October, 1965

since corn does a good job of shading out low-growing weeds. Before you plant the corn I would suggest that you spray the entire field with amino triazole which you can purchase under the trade names of Amatro T and Cytrol T.

After spraying, wait a week or ten days before fitting the soil or until the quackgrass has turned white. You can plant the corn approximately 15 days or so after the amino triazole has been applied. In other words, you should allow at least two weeks between the application of the amino triazole and the planting, with the fitting coming in between, but after the quackgrass has pretty well died.

If you should get some quack showing up next spring, you could spot-treat the field before planting the potatoes. Again allow at least two weeks between application of the chemical and the planting of the potatoes. — Philip A. Minges, Cornell University

I have been told that putting aluminum siding on a house will cause the sills to rot. Is this true?

I have not been aware of difficulty with the rotting problem relative to the application of aluminum siding. There is, however, opportunity for it in some situations.

If the siding is properly applied, it should shield and drain all exterior rainfall. A problem could occur with relation to vapor from

within the building condensing between the aluminum siding (or felt or other material on the inside of it) if high moisture vapor conditions exist.

This is relatively common on exterior walls of bathrooms (showers), laundries (unvented driers), or kitchens where excessive boiling of water takes place. The remedy is to apply a vapor barrier to the inside wall surface if the vapors cannot be vented by fan or other means. The easiest barrier to use after a house is built is an oil paint film (two coats) over a smooth surface. If the plaster is badly cracked, the oil film will be less effective; it is of little value over paneling (many joints). — Prof. E. W. Foss, Cornell University.

What causes the blossoms to fall off my tomato plants?

There are several things that might be involved here, but the most common one is that of night temperature. Tomatoes will set fruit well when the flowers open during periods when the night temperatures are ranging between about 58 and 75 degrees Fahrenheit. If the temperatures are cooler or warmer than this the flowers often do not set properly.

This year we had a rather large number of nights of temperatures below this minimum range, interspersed by periods of relatively hot weather. For this reason to-

matoes in some areas have not set as well as we would like to have them. — Philip Minges, Cornell University

Does the use of ammonium nitrate as a fertilizer increase the acidity of a soil?

Yes. For each 100 pounds applied, about 58 pounds of ground limestone is required to bring the pH back to its former figure.

What is the right moisture content for storing high-moisture mature ear corn in the silo?

About 30 percent. If much lower, it will mold easier, and if much higher (over 40 percent) storage losses increase. In an airtight silo, though, you can store at any moisture level.

Can I save an apple tree that threatens to split by tying the limbs together with wire?

Yes, if it's done properly. Rather than passing the wire around the limbs, put screw eyes into the wood of each branch, and then wire the screw eyes together. The reason for this is that new growth occurs just under the bark, and wire that encircles a limb cuts off the circulation of sap. Recently, nylon strapping also became available for this job.

Can I grow cucumbers on a trellis to save garden space?

Yes ... also melons, squash and tomatoes.

BHL



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The clubhouse for golf course customers.

THIRTY TONS PER ACRE

We are aiming for 30 tons of corn silage per acre; in 1964 we hit 26.

One practice that we follow is to plant corn in double rows 7 inches apart with 28 inches between the double rows. We use a 17-disk drill with disks 7 inches apart, using 2 adjacent disks and then skipping 3 disks. We can plant a lot of corn in a day.

We plow under nitrogen, using ammonium nitrate or urea to provide from 100 to 150 pounds of actual nitrogen per acre. Then we broadcast and harrow in from 400 to 600 pounds of 0-20-20.

The corn is harvested with a single-row field chopper and put in one of three silos, a tower holding 225 tons, a trench holding 450 tons, or another trench holding 150 tons. We prefer the trench, based on cost, upkeep, ease of handling, etc. Later, the upright silo may be sealed tighter, and an unloader installed to handle high-moisture corn.

The herd of 135 cows is in free stalls in a pole-type building 144-feet x 44-feet wide. We built the stalls, running crosswise of the building, for about \$5 per stall for lumber and hardware — *Phil Munson, North Lansing, N.Y.*



Carl Green (left) and his brother Glenn.

GOLF COURSE

In addition to caring for 170 head of cows with 110 milking, we are building a golf course on what was mostly 165 acres of pasture.

Dad, who died three years ago, had the idea and we are carrying it out. It has taken three years because we did most of the work ourselves. We did hire some heavy earth-moving equipment and an architect to lay out the course. We will open a 9-hole course on Decoration Day, 1966, and will eventually have an 18-hole course and a swimming pool.

In making the course, we made 7 ponds, seeded fairways with bentgrass, and laid 4 miles of irrigation pipes. One pond holds 10 million gallons and the system will put on 30 thousand gallons of water per hour.

We have already built a clubhouse and will operate a restaurant. While this will be a public course with fees set to meet competition, we plan to have a club membership of 100. We already have 50 signed up though we have accepted no money. Though they once thought it was a rich man's game, many farmers now enjoy a game of golf. However, we are near Oneida Lake and many customers will undoubtedly be vacationers.

When completed we expect to have a course second to none. — *The Green Brothers (Glenn, Carl and Ned), West Monroe, Oswego Co., New York.*



John Simplear and a young Red Delicious apple tree.

AIMS FOR QUALITY

I am told we have the largest apple orchard in Oswego County. We grow mostly McIntosh, Red Delicious and Golden Delicious for the fresh market and aim to pro-

(Continued on next page)

American Agriculturist, October, 1965

duce a quality that pleases consumers. We also grow some cherries, prunes and peaches and sell some hay. Including an orchard near Lyons, New York, we have 350 acres of apples.

Local help pick the apples and "spot pick," that is pick 2 or 3 times, taking only the ones that are ripe. In order to produce quality (including color) we prune lightly every year by hand.

The land here is dryer than at Lyons and we irrigate 75 acres here, putting on 3 to 4 inches about July 1. You can get too much water, causing apples to grow too rapidly.

We judge the amount of fertilizer to use by the looks of the trees, supplemented by leaf analysis.

Selling the fruit is no problem, which may indicate that we have been able to meet our goal of producing quality fruit. — *John Simplear, New Haven, N.Y.*

GOOD INSURANCE

In July of 1962, because of severe drought conditions in our area, we decided that it would be to our advantage to purchase a portable irrigation system. We invested approximately \$4,300 in it.

We had one pond, built another in 1963, and have plans to construct another this year (1965). We use a diesel farm tractor to pump the water. We irrigate approximately one acre at a time and it takes one hour per inch of water. We apply about two inches per application. We irrigate hay, corn and oats.

Since we have used the irrigation system we have had enough hay and corn silage to feed our dairy of 40 milkers and 23 head of young stock. We have 90 acres of tillable land, including pasture.

Would we purchase again? Yes, as we believe it is good insurance against the extreme dry weather like we have had for the last four years. — *Stuart F. Turner, Richfield Springs, New York*

NO REST

We've been feeding corn silage as the only roughage for a number of years now. As a result, our Holstein cows tend to be a little beefy... carrying more fat than some herds.

Four out of five of our cows aren't dried off at all, except for the ten days just before calving when their udders cake. I think the need for a rest period is overrated... especially for cows carrying good condition.

In a stanchion barn it's fairly simple to dry cows off, but when cows are in free stalls and the herd milked in a parlor... as in our case... it's difficult unless dry cows are separated from the herd. We find that, for most cows, our production results are fine if we work 'em full time!

— In addition to silage, cows get a grain mix containing 24 percent protein. — *Richard Ellis, Aurora, New York.*

American Agriculturist, October, 1965

LIKES PASTURE

Some years ago I had improved pasture split up in small fields and moved the herd every day. But as I kept more cows, labor and fencing upkeep persuaded me to modify the program. The herd of 90 milkers now gets hay every day of the year.

While I plan to depend less on pasture, I expect to keep 2 or maybe 3 fields of 10 to 12 acres near the barn and rotate the herd probably every 3 weeks. I'm not sold on keeping cows confined all the time. In fact, I'm building a covered bunk feeder so they can be kept out from early April until late November.

In August 1964, I bought an irrigation system. The mistake I

made was in not installing it earlier. It would have paid a substantial part of its cost last year. I did irrigate corn in August. It added weight to the ears but not much height to the stalks.

This year I irrigated 40 acres of corn with 4 inches of water once early in July. I don't expect to put on more water unless it gets real dry. In June I watered 45 acres of second cutting alfalfa and in July 50 acres of improved pasture of ladino, alfalfa and orchard grass.

I am convinced that the system is good insurance (we have 3500 feet of pipe and plenty of water). My corn has a population of 30,000 stalks per acre and it must have adequate water in order to develop ears.

We have had 4,000 hens, but I have concluded that I must either get bigger or get out and have decided to get out and concentrate our efforts on the cows. — *Marshall Minot, Pulaski, New York*



Marshall Minot with part of his 3,500 feet of irrigation pipe in the background.



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Clifford—Homer Entrat
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Corry—Corry Truck & Impl. Co.
Daylestown—Daylestown Agricultural Co.
Elizabethtown—Harold Brandt
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COCCIDIOSIS has been and continues to be one of our leading poultry disease problems. As our knowledge of the disease has increased, so has the incidence. Why?

Poultry management practices of intensive rearing have been the greatest contributors to the continuance of coccidiosis as one of our most serious poultry disease problems. When one stops to consider that we grow chickens in an area of approximately one-half square foot per bird and that one sporulated oocyst can produce from two to three million new parasites in ten days, it is easy to see why coccidiosis continues to be a problem.

Control

Controlling coccidiosis should be approached through one or a combination of the following methods:

- Raise the birds in absolute isolation.
- Treat the birds if and when an outbreak of coccidiosis occurs.
- Use a continuous medication program throughout the birds' life.
- Establish immunity to coccidiosis.

However, under our present day management practices, strict isolation to prevent this disease is not practicable. Treating the flock after they succumb to a clinical infection of coccidiosis results in high morbidity and mortality, with a resulting flock of cull birds. This is an expensive way to attempt to prevent or control coccidiosis.

When considering layers, continuous medication throughout the birds' life is expensive, and the possible effects on fertility, hatchability, and production would have to be carefully weighed before this should be attempted.

Best Answer

In my opinion, the answer to raising replacement birds and controlling coccidiosis both during the growing stage and in the laying house depends upon the birds acquiring immunity to coccidiosis as early as possible. Acquiring immunity has no single or simple answer because this life process involves a delicate physiological balance.

The bird must be exposed either naturally or artificially to sporulated oocysts while receiving a drug to prevent the infection from becoming a clinical case of coccidiosis. The exposure must not be

COCCIDIOSIS

by R. L. Miller*

severe enough to overwhelm the drug, nor must the drug be so strong that it completely suppresses all infection.

We know that chickens can be infected with nine species of oocysts and that immunity to one species does not impart immunity to the other eight. We also know that a severe infection with one species may impair the bird's ability to develop immunity to other species it may be exposed to during the same period of time. The condition of the litter as well as temperature and humidity determine the number of oocysts that will become infective.

No Single Answer

It is easy to see that no single program can be set up for all sections of the country, or even for all growers in a given area. The immunity a bird develops is not life-long, and the period of lasting immunity varies among the various species. The immunization program should meet the following requirements:

- A bird should be exposed to the species that one would normally expect the bird to come in contact with during its life.

- The initial exposure, if too severe, may result in a clinical case of coccidiosis. It has been established that repeated exposure of medium intensity would produce a better, longer-lasting immunity than will severe exposure for a short period of time.

- Repeated infection or exposure is necessary if immunity is to be maintained throughout the bird's life.

- The oocysts must be viable and the drug must not destroy all oocysts if immunity is to result.

- The litter must be moist and warm enough to permit sporulation. If the litter is too dry, sporulation will not occur and immunity will not be achieved. The successful recycling of infection is necessary for the development of immunity.

- The use of drugs at levels that will eliminate the disease, in addition to the coccidiostatic drug intended to merely keep infection under control during the growing period may result in a flock not developing proper immunity.

Broilers

The broiler industry is interested in suppressing coccidiosis, not acquiring flock immunity. The control of coccidiosis can be accomplished with any one of the several coccidiostatic drugs available today.

However, we again are not dealing with a single species, but nine species, of which at least four or five are frequently present in most infections. There are no coccidiostatic drugs that are effective.

(Continued on page 21)

* Technical Service Chief, Hess & Clark

NEW LAWS

The Empire State Legislature has passed, and the Governor has signed, a number of laws directly affecting rural people in New York State. Some of the more important ones are as follows:

A 2 percent sales tax that specifically exempts most farm machinery and production items.

There has been and will continue to be for a while considerable confusion over the exact interpretation of this law as far as farmers are concerned, but this will be ironed out in time.

The use of certain herbicides near grape vineyards will be prohibited year after year by the Com-

missioner of Agriculture. Grapes are notoriously sensitive to such materials as 2,4-D, and the law is designed to protect growers from damage caused by drift from neighboring fields.

The Potato Golden Nematode Eradication Program was extended for one year, and a sugar beet cyst nematode eradication program was initiated.

A new fertilizer control law revises and updates the sale, analysis and labeling of commercial fertilizer. It was badly needed legislation, because the fertilizer industry has made massive

changes since the original regulations were made into law.

Farmers and processors are now prohibited from delivering fruits, vegetables or poultry for processing without a certificate of sale, including the price per unit.

Local people were given more influence in school district reorganization, along with being offered strong incentives for small districts to merge.

Other legislation authorized the Extension Service to provide regional programs embracing several counties, extended the rabies indemnification program for one year, and increased State aid to school districts from \$500 to \$600 per pupil.

Mandatory workmen's com-

pensation and unemployment insurance coverage were blocked, as were extension of Daylight Saving Time to a nine-months period, and an attempt to prevent 12 to 14-year-old children from picking berries.

The Governor vetoed a bill passed by the Legislature that would have required farm land actively devoted to agriculture to be assessed according to present use instead of potential use. He also vetoed a law that would have forced the division of each county into no less than 5 districts substantially equal in population... a setup where the county legislator would not have any responsibility at the town level as town supervisors now have.

NEPPCO MEETS

The 28th annual get-together of the Northeastern Poultry Producers Council (NEPPCO) will be held in the Farm Show Building at Harrisburg, Pennsylvania, on October 12-14.

In keeping with its theme, "Heralding a New Era in the Northeast," the 14-state Exposition will feature topics outlining opportunities, analyzing the reasons for success or failure in the industry, and examining the latest production and disease-fighting techniques.

Among the talks on Wednesday will be a report by John W. Carncross of Rutgers University on "Why Some Poultrymen Succeed While Others Fail." C. Dean Olson, president of Olson Bros., Inc. of North Hollywood, California, will discuss "A Californian Looks at the Egg Business in the East and in the West."

Other Wednesday speakers include: Frank J. Lipman, president of Lipman Bros., Augusta, Maine, integrated operators, who will speak on "Opportunities for Broilers in Pennsylvania." On egg marketing, two speakers... Frank D. Reed of the University of Maine and A. Kermit Birth of Pennsylvania State University... will discuss "The Facts and Figures about On-The-Farm Egg Processing."

Paul F. Osborn, chairman of NEPPCO's Turkey Division, has arranged a full day's activity on Wednesday for turkey producers.

Keynoting the exposition with the opening-day address on Tuesday will be Dr. Kenneth Hood, American Farm Bureau director, who will advise producers on how "NEPPCOland Poultrymen Can Top The Nation."



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What's more, Mr. Mauritz feels his calf crop... as well as his entire herd... is sturdier and healthier this year than it's ever been before.

Granted, it takes more than MIN·VITE to achieve results like this. It takes good management and sound breeding, too. However, records on farm after farm, show that the Watkins MIN·VITE program plays a big part in increasing herd production and lowering feed costs. The MINeral-VITamin fortification a dairyman receives from MIN·VITE enables him to build a *better balanced* ration for his cows... a ration that helps them *utilize more* of the nutrients in grain and protein... Join the many dairymen, like Kurt Mauritz, who are feeding Watkins MIN·VITE and *profiting!*



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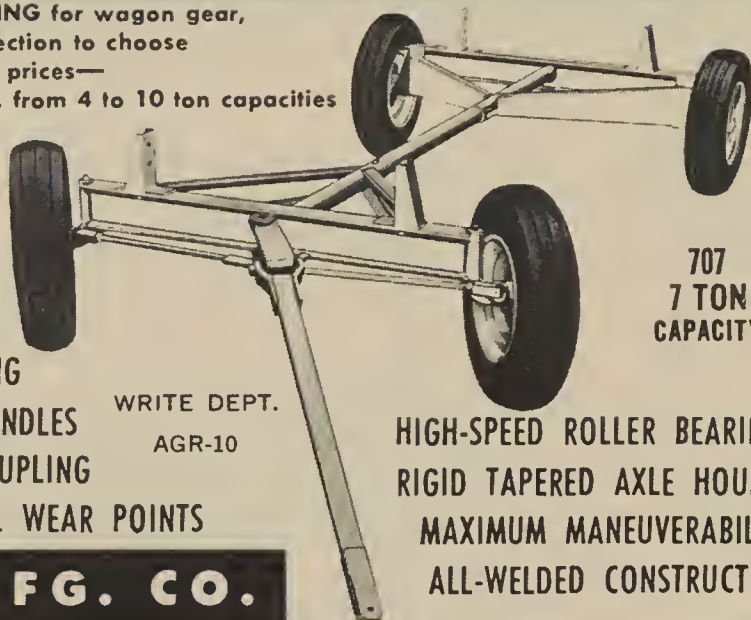
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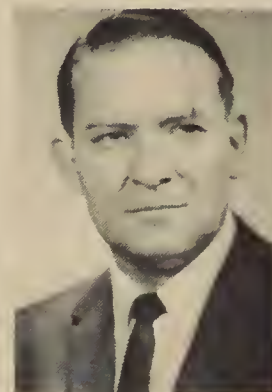
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News and Views from NEW YORK AND PENNSYLVANIA



Appointment — Professor Nyle C. Brady, director of science and education for the U. S. Department of Agriculture, and former head of Cornell's agronomy department, has been named



Nyle Brady

director of research and director of the Cornell University Agricultural Experiment Station. Brady succeeds Professor W. Keith Kennedy who recently was named associate dean.

Time-Saver — On the farm of Al Edwards at Genoa, New York, poultry manure is removed in dry form each 14 months. Each pit is three feet deep, 110 feet long, and 9 feet wide, and holds approximately 100 tons of manure. To have the system work satisfactorily it is necessary to have a concrete apron in the loading zone, and a concrete floor underneath the cages.

Appointment — Dr. Arthur J. Pratt, Ithaca, New York, is the new executive secretary of the New York State Vegetable Growers Association. His offices are in East Roberts Hall, Cornell University; phone number Area Code 607, 275-3031.

Prominent Farmer — The late John W. Rich, Canton, New York, whose death at the age of 30 leaves a widow and four children ranging in age from 4 through 10, was much loved throughout New York State. He was actively interested in Farm Bureau, Extension Service, civic organizations and his Church.

A trust fund has been set up to help with the education of his children. Any friends who would like to contribute may do so through the John Rich Memorial Fund, c/o St. Lawrence County National Bank, Canton, New York 13617.

New Warehouse — The Oliver Corporation is building a new branch warehouse and office in the Harrisburg, Pennsylvania area. Location is on the Old Gettysburg Pike, just off Routes 15 and 83, and it will consist of 64,000 square feet of floor space. Plans call for a rail siding to the building, one outside railroad dock, and truck unloading facilities. Dealer truck loading will be done under the main building roof.

Dairy Princess — Twenty-five thousand people were in attendance for the parade of the Herkimer County (New York) Dairy Princess and her court which opened the annual county fair. Princess Carol Prior of Clay-

ville is a student in the College of Home Economics at Cornell.

Best Poultry Boy — David Morse (18) Moravia, N. Y. was named New York's "Best Poultry Boy." He will compete with "best poultry boys" from 13 other states at the annual exposition of the Northeastern Poultry Producers Council (NEPPCO) at Harrisburg, Pennsylvania.

Star Farmer — David J. Mosher (17) Greenwich, New York, was one of the four outstanding students of vocational agriculture named by the Future Farmers of America to receive a regional Dairy Farming award for 1965. David is a member of the Greenwich FFA Chapter, and at present has a herd of 35 cows and 19 heifers. Last year's production average was 15,720 pounds of milk and 578 pounds of fat from 20 cows.

Purchase — Recently Pro-Fac and Curtice Burns bought the stock of Empire State Pickling Company, whose main product is sauerkraut, sold under the national label "Silverfloss." This adds another major commodity to Pro-Fac's vegetable and fruit sales line.

White Mushroom — The white mushroom has been officially renamed the Pennsylvania White Mushroom in recognition of its importance to the industry in the State, in a resolution adopted by the State Senate. The mushroom was found in Chester County, and now accounts for 80 percent of total U. S. production. Pennsylvania produces about 60 percent of all mushrooms grown in the U. S., a crop valued at about \$30 million annually.

Free Stall Barn — A new free stall barn complete with milking parlor and milkhouse has just been put in operation by George and Fred Durkee on the Durwick Farm, Orleans, New York, (on Route 88). Starting in 1942 with 3 cows, 5 veal calves, and 40 ewes, the Durkees now have 435 acres with 150 head of registered Holsteins. The present herd average is 16,195 pounds of milk, 574 pounds butterfat.

Many innovations have been incorporated in this system, and testing will be carried on relative to types and sizes of stalls, concrete mixes, epoxy paints, ventilation, lighting and heating.

Flying Queen — The Pennsylvania Chapter of the International Flying Farmers had the honor of having their queen, Mrs. Ruth Wilson, named International Queen at the recent convention. She and her husband live on a 450-acre dairy and small grain farm near Nottingham.

American Agriculturist, October, 1965



MEASURES OF MANAGEMENT

by Lowell Hardin*

THE MAN LOOMS large in farm management. We, therefore, have to study him and his family . . . along with his resources and how he uses them. We do have research which says that if a man has certain attributes, his chances of success as a farm manager are improved. The converse is not necessarily true; absence of some of the attributes does not necessarily mean failure. Were management an exact science, we could predict with greater accuracy.

Difficult Job

To characterize those who are successful and who have the potential for success is difficult. But here we look at the man in farm management in an attempt to identify the successful as compared to the less successful. To most of us, this will be a review of that which we already know; a recitation in common sense. At any rate, here are some characteristics of the successful as compared to the less successful farm managers:

SUCCESSFUL

1. Has fairly specific and definable goals and objectives for himself and his family. His achievement interests and desires are strong. He plans ahead.

* Agricultural Economist, Purdue University

Coccidiosis

(Continued from page 18)

tive against all species. Drugs for coccidiosis control have been developed with emphasis not only on controlling coccidiosis but not interfering with feed efficiency or weight gains.

Once again the broiler operator must utilize good sound management. In all cases, it is possible for any coccidiostatic drug to be overwhelmed if the exposure to sporulated oocysts is great enough. Good litter management coupled with good sanitation will keep the sporulated oocysts population within bounds.

The presence of mild coccidiosis is not detrimental as some people have indicated. In fact, recent work indicates that birds recovering from an infection or exposure of coccidiosis will have a greater growth rate than chickens not infected with coccidiosis. It might be said that coccidiosis is a disease for which complete prevention is impossible, but good control can be achieved.

Good control is dependent on:

- The application of good poultry husbandry and management.
- Adequate nutrition.
- The use of coccidiostatic drugs during the growing period.
- The drug being present in the feed or water at the required level.

American Agriculturist, October, 1965

2. Identifies the real problem. Accurately analyzes the difference between what is and what ought to be . . . within the framework of his own goals. This he does on an economic, realistic basis.

3. Perfects the power of observation . . . a key source of knowledge

when dealing with biological processes, people.

4. Sorts out the big management decisions from the little ones . . . and invests management time accordingly. Timely, punctual.

5. Is possessed of vigor, health, energy; willing to face risk, uncertainty.

6. Remembers that yesterday's right decisions might be wrong tomorrow, yet is not afraid to move ahead.

7. Is blessed with the power to forget, to "unlearn" . . . as well as with the curiosity to learn; sees challenge in the new; exercises initiative.

LESS SUCCESSFUL

1. Will wait and see what tomorrow brings. Is content with

whatever lot happens to come his way.

2. Fails to define problems in specific enough terms to identify them or take corrective action. Asks the wrong questions. May use emotional base for decision making.

3. Looks but does not see; listens but does not hear.

4. Can't see the forest for the trees. Seems not to be time conscious.

5. Lackadaisical; somewhat interested in the "sure" thing.

6. Sticks to existing or historical practices and methods. Oblivious to new evidence.

7. One failure burns so deeply that the past dominates the present, masks the future; sees only frustration in new ideas.

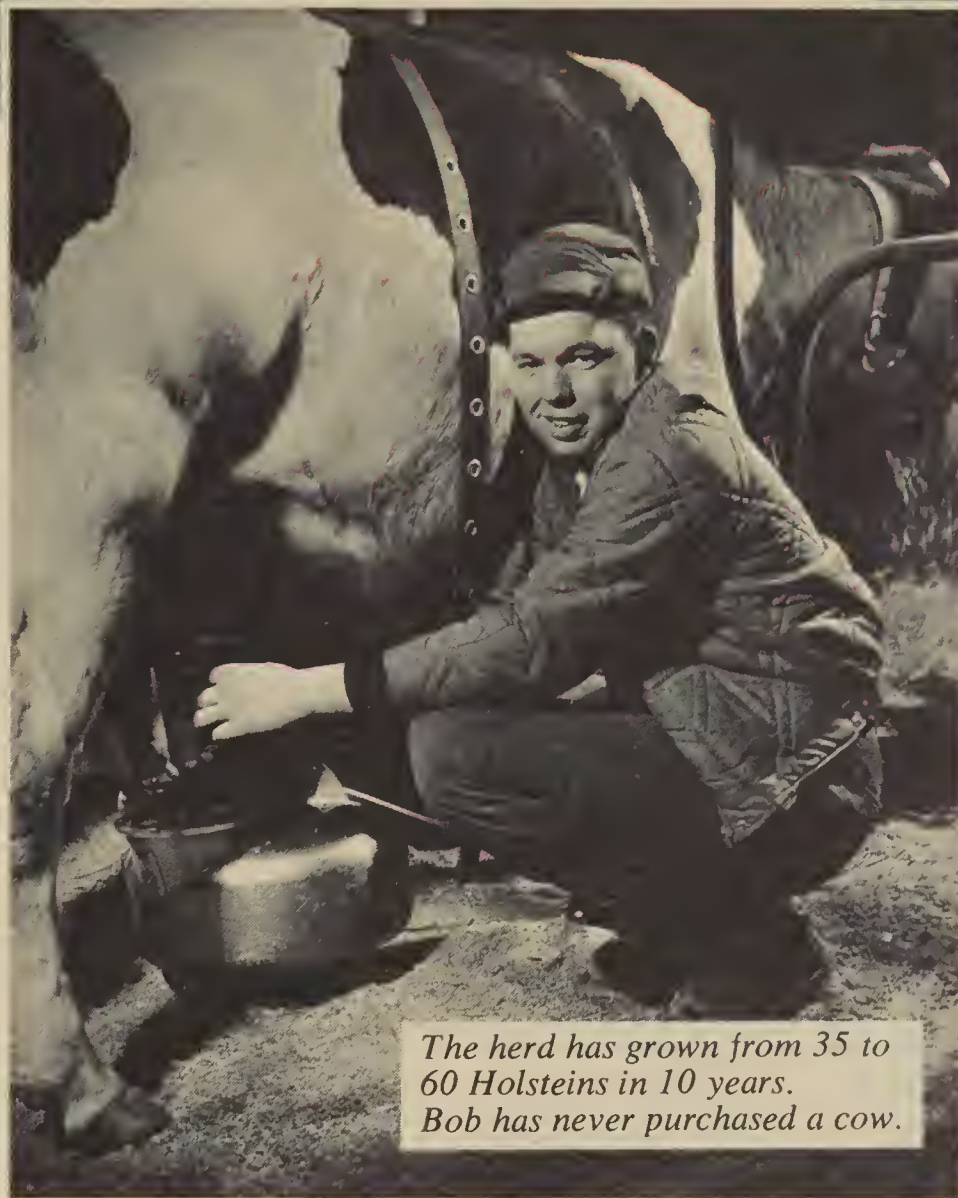


Bob and Bruce are proud of the latest herd record — 12,300 Milk, 438 Fat.

WHY WIRTHMORE IS PART OF THE FAMILY AT LEDGE VIEW FARM



Mrs. Philbrook handles the books and keeps tabs on performance and profits.



The herd has grown from 35 to 60 Holsteins in 10 years. Bob has never purchased a cow.

The Philbrooks, Bob, Eva and son Bruce of Greene, Maine are in farming to make money — just like you. That's why they rely on Wirthmore feeds and service. They've tried other feeds but always came back to Wirthmore because they found that nothing else gives such consistent results — or makes as profitable a herd.

Wirthmore belongs in your farm family, too, because it's worth more.

WIRTHMORE

RETIREMENT

(Continued from page 12)

although a codicil may be effective. Don't try to change it by drawing lines through items, erasing, writing over, or adding notations; this may destroy it as a will.

Preparing The Will

This is not a do-it-yourself project! Secure the services of a lawyer. Although many wills prepared without legal aid have been successfully executed, the risk is too great; minor details may invalidate your good intentions.

Make a list of everything you own; decide who should be the beneficiaries of your real and personal property.

Select an executor or executrix

to administer the will. This may be the beneficiary who will inherit the bulk of your estate, another member of the family, your legal or financial advisor, a trusted friend, or a business associate. You may wish to name a contingent executor to act in case your first selection dies before you or is unable to serve.

A bank can act as executor, trustee under a trust, or guardian of either a minor or an incompetent person. A bank is experienced and familiar with accounting and management details, it is financially responsible and a continuing institution — an individual may die; a bank has continued life.

Choose a competent lawyer. The charge for his services depends on the complexity of the preparation

of your will; however, the cost is small considering the time, money and frustration you may save.

If complicated, ask for a rough draft of the will to study before it is ready for signing.

A will must be written, signed by the maker, and witnessed. The original copy is the legal document and must be signed; you may wish to have unsigned carbon copies available for convenience.

A well-drawn will contains a common disaster clause to establish contingent beneficiaries if both husband and wife die within a stated period of time. Without such a clause, if both husband and wife die with no way to determine who died first, their individual property is disposed of as if they had died a

widow and widower. Property owned jointly is divided proportionately among the heirs of the joint owners; the husband's heirs receive one-half, the wife's heirs one-half.

Couples of modest means frequently name each other as sole beneficiaries, and each has an independent will. Such an arrangement avoids many complications for the survivor when there are minor children.

Keep your will in a safe place, but let someone know where it can be found when needed. If kept in a safe deposit box, it can be removed by the executor in the presence of an employee of the bank. This may be done before an inventory of contents of the box is made by the district supervisor of the Transfer Inheritance Tax Bureau.

RECENT CHANGES

IN SOCIAL SECURITY



Retirement benefits go up 7 percent retroactive to January 1, 1965. Minimum increase monthly will be \$4 to \$6 for couples. Top pension, now \$135.90 based on tax on \$4800, will rise to a maximum of \$168 in future years when tax on first \$6600 of income (beginning January 1, 1966) will have been in effect for the required period.

Widows with children will get as much as \$309.20 a month in future, compared with the \$254 limit now. This rises gradually over the years to \$368 family maximum. This affects life insurance you need. Children will draw benefits until they reach 22 instead of 18, if parent dies, retires, or is disabled . . . as long as they are students.

Widows will be able to collect their old-age benefits at 60 instead of at 62 if they want, although amounts they get will be reduced.

You'll be allowed to earn more when you retire. The new rule allows you to make \$1500 a year without loss of benefits. But instead of losing \$1 for each \$2 of earnings between \$1200 and \$1700, the \$1-for-\$2 rule will apply up to \$2700 a year. Beyond that, \$1-for-\$1. This change will make it easier for older people to hold part-time jobs.

Medicare goes into effect July 1, 1966. There are two parts:

Automatic hospitalization coverage for everyone 65 years or older, whether covered by social security or not. And there's no means test.

Up to 60 days in hospital for each sickness . . . semi-private room, private if needed. Up to 100 days nursing home afterward, and 100 visits by nurse. Covers hospital drugs, but not doctors or

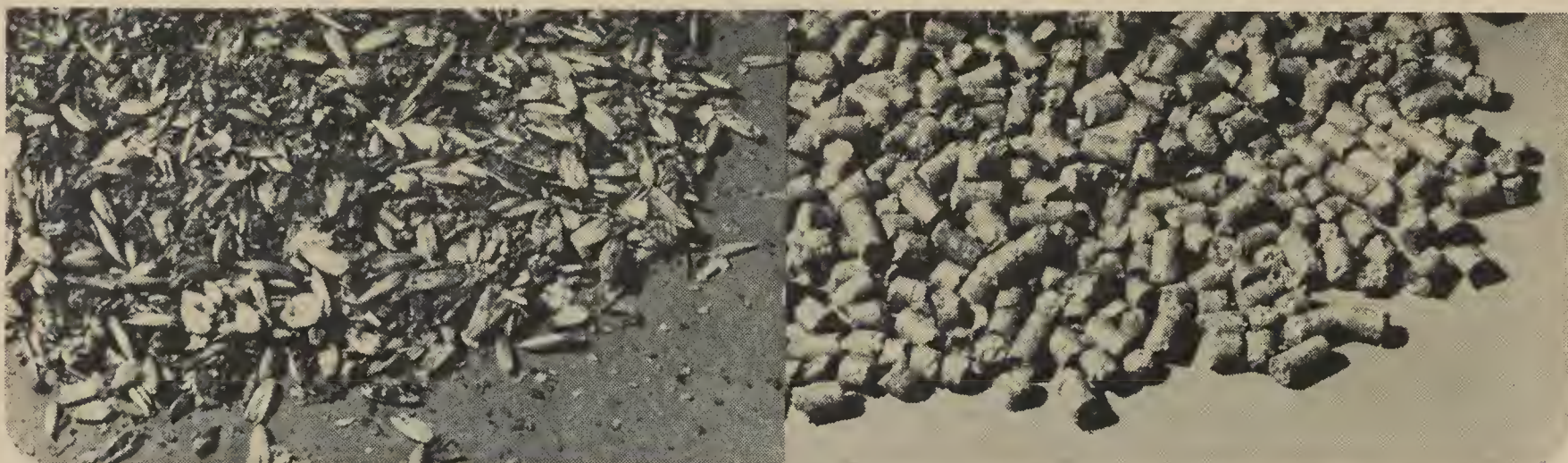
(Continued on next page)



1. To freestalls or labor saving conventional barns . . . for more comfortable cows, fewer man hours per cow.

2. To milking parlors . . . for greater milk sales per man and per man hour, with less effort.

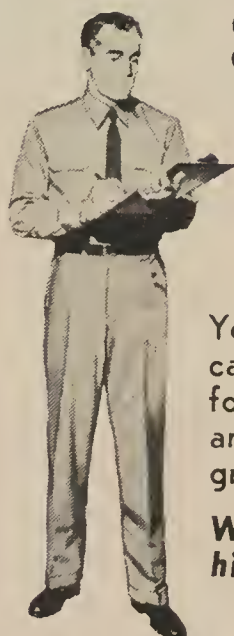
3. To heavier silage or haylage feeding . . . for more TDN or more Net Energy per acre, harvested and fed mechanically at lower cost.



4. To Beacon high energy milking rations . . . for increased palatability, good flow characteristics, high milk production and top income over feed cost.

FOUR SWITCHES

top dairymen are making to get
\$5,000 or more labor income



Your Beacon Advisor can help you plan for more milk per cow and per man — for greater labor income.

Why not call him today?



**BEACON DIVISION
OF textron**

Headquarters:
Cayuga, N. Y.

other specialists. Patient pays for first \$40 of cost and first 3 pints of blood, if needed.

Health insurance section pays doctors' bills...surgeons, etc. Also lab tests and other diagnostic services, ambulances, wheelchairs, splints and casts, oxygen tents, etc....and 100 home nursing visits a year without having been hospitalized. Patient pays first \$50 a year of bills, plus 20 percent of the balance. Doesn't cover physical checkups, glasses, etc.

The health insurance coverage is not automatic...coverage is voluntary. One receives this protection only by enrolling and thus agreeing to pay premium of \$3 monthly with the Federal Government matching this amount.

Note that you will NOT have to be retired to get the coverage under either the health or hospitalization sections...need only to be 65.

By the way, a racket is spreading across the country in which a con man posing as a representative of the Social Security Administration calls on elderly people and offers...for a price... "medicare insurance policies." Remember that bonafide representatives should have official cards bearing their pictures...or better yet, always go to your nearest Social Security office to get information.

Hospital and medical care coverage doesn't begin until July 1, 1966, so the payments for medical insurance benefits will not begin until then.

There are many booklets, bulletins, pamphlets, etc. written with suggestions for happy retirement. Among them are the following:

Your Retirement—Available from The Institute of Life Insurance, 488 Madison Avenue, New York 22, N.Y.

Look Forward to Your Retirement—Chamber of Commerce of the United States, 1615 H Street, N.W., Washington 6, D.C.

Planning for Retirement; Settlement of Estates; Property Ownership in Massachusetts; Your Life Insurance; Your Social Security; Your Health and Accident Insurance; Building Your Savings and Investments; Should You Make a Will?—Extension Service, University of Massachusetts, Amherst, Mass.

Your Retirement Years, Parts I, II, III and IV—Extension Service, The University of Vermont, Burlington, Vt.

Residents of New Jersey can get bulletins on the subject of **Live Long and Like It**, covering foods, money, and activities. Also available to residents of that State is a bulletin entitled **A Will For You**, with much valuable information.

Perhaps your State Extension Service has some literature available. Why don't you ask them?

FORAGE HANDLING HELP

A series of four publications on forage handling have been prepared by Professors E. B. Hundoft and R. W. Guest of Cornell University. All have a common title, "Handling Hay Crops," but discuss different parts of the management situations involved. They include:

#363 — Basic considerations in selecting field equipment...capacities, costs, power requirements, and performance.

#364 — From standing crop to windrow...conventional mowers, conditioners, fluffers and tedders,

rakes, choppers, and windrowers.

#365 — From windrow to feed bunk...chopper systems, bale systems, harvesting machines, storages, and feeding equipment.

#366 — A comparison of systems...equipment requirements and costs for various hay crop handling systems.

These publications are available to New York State residents from their county agricultural agents, or by writing direct to Agricultural Engineering Extension, Riley-Robb Hall, Cornell University, Ithaca, New York 14850. A few copies are available for out-of-state residents, but publication budgets dictate that there be no large-scale distribution outside New York.

BEEF FILM

A beef cattle judging film has just been released by the American Angus Association. Titled "Be A Better Angus Judge," the 16mm sound film, in full color, runs for 25 minutes, demonstrates correct type, important faults to avoid, strong points to look for, and many other important guidelines. Agricultural groups and others wishing to obtain a copy for showing should write to the Public Relations Department, American Angus Association, 3201 Frederick Boulevard, St. Joseph, Mo.

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Lime Crest Barn Calcite

More dairymen use our Barn Calcite because it keeps their floors white and clean-looking so much longer...its uniform granules take hold and keep cows on firm footing even in wet weather—that's why we call it **non-skid**...it's so economical, so easy to use, and it makes better fertilizer, too.

We're so sure you'll like Lime Crest Barn Calcite, we want you to try an 80 lb. bag at our risk. If you're not entirely satisfied, just send us your receipted sales slip...we'll refund the full price you paid!

If Lime Crest Barn Calcite is not available in your area, send us the name of your feed or farm supply dealer...we'll make every effort to see that he's supplied.



LIME CREST
BARN CALCITE

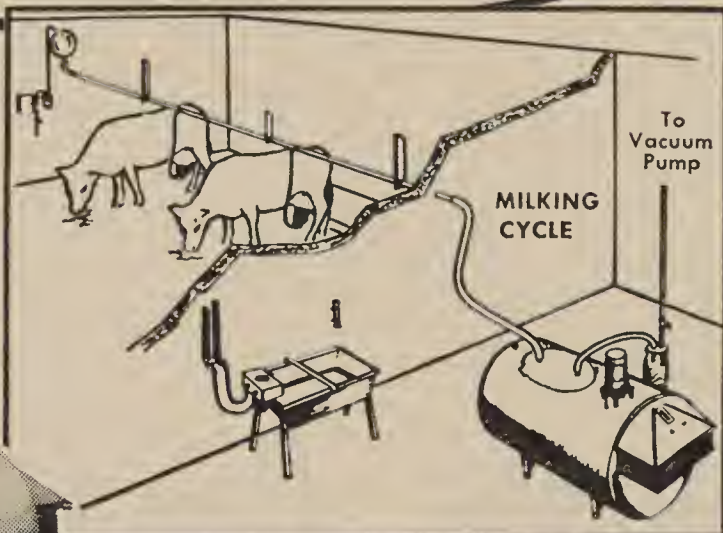
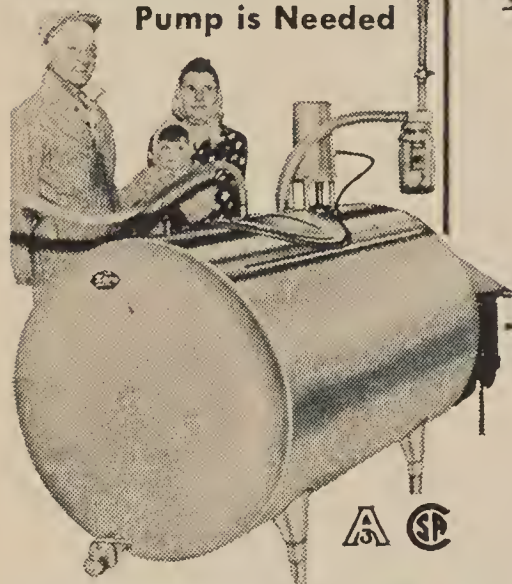
LIMESTONE PRODUCTS CORPORATION OF AMERICA, NEWTON, NEW JERSEY

NOW! A SIMPLE, COW-TO-TANK PIPELINE SYSTEM—at Low Cost FOR THE DIVERSIFIED FARM WITH A SMALL HERD!

THE NEW **Zero**[®] VACUUM-OPERATED SIMPLE-SIFON PIPELINE

OPERATES WITH YOUR PRESENT MILKER UNITS

No Expensive Hard-to-Clean Releaser or Milk Pump is Needed



SIPHONS MILK DIRECT FROM COWS BY VACUUM INTO THE **Zero[®] VACUUM BULK MILK COOLER**

ONLY WITH A VACUUM BULK TANK IS THIS SYSTEM POSSIBLE!

Makes the Milking Chore as Easy as Modern Kitchen Work!

The picture at upper right shows how easy milking and clean-up can be—when you have this new **ZERO SIMPLE-SIFON PIPELINE**. It's a *simple, complete, vacuum-operated, cow-to-tank pipeline milking system*—that operates with your present milker units—and the **ZERO VACUUM BULK MILK COOLER**. The **SIMPLE-SIFON** costs very little. The **ZERO Tank costs less than a can cooler and cans.**

ONLY WITH A VACUUM BULK TANK IS THIS SYSTEM POSSIBLE! *Vacuum*, supplied to the **ZERO Tank** by your milking machine vacuum pump, *siphons* milk direct from cows—through pipeline and short milk line—into the **ZERO Tank**, ready for pick-up. *No costly, hard-to-clean releaser or milk pump is needed!*

SIMPLE, BUILT-IN, VACUUM-OPERATED WASHER ASSEMBLY washes, rinses and sanitizes the milk line and milking equipment automatically.

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for top performance with today's high speed saws —

LOOK FOR THE SILVER LINK IN EVERY FACTORY ASSEMBLED CHAIN



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OMARK INDUSTRIES, INC.
PORTLAND, OREGON

Jim Barbour installed time clock controls on augers discharging into pipes from overhead bins.



FEED HANDLING BUILDING

JAMES BARBOUR SR. and son **Jim Jr.** of Hallstead, Pennsylvania, are using a feed handling setup that they've been working on for some time. The younger Barbour comments, "We thought about the idea for many years and actually developed specific plans over the last three or four years."

Time was when the grain grown on the Barbour place had to be shoveled from the storage bin to the hammermill, then bagged and lifted to the mixer, bagged again and carried to a chute down which it tumbled to a feed cart in the stable. Now they put a ton of feed every other day in the winter through a portable grinder-mixer ... all grain flows or is conveyed by mechanical power.

Three Bins

The building storing grain has three bins ... a big one for holding oats, plus two smaller ones. When built, the center bin was intended for soybeans, but the price on that protein-rich grain has been so high that the Barbours haven't used them. Last year, shelled corn from government storage was made available to drought-stricken areas; this was placed in that bin.

Shelled corn was found to place too much weight on the four-inch auger at the bottom of the bin,

making it impossible to operate. This was cured by putting a board over the auger, held off the floor by small wood blocks so the grain would flow through the opening between board and floor, but not exert pressure straight down on the auger.

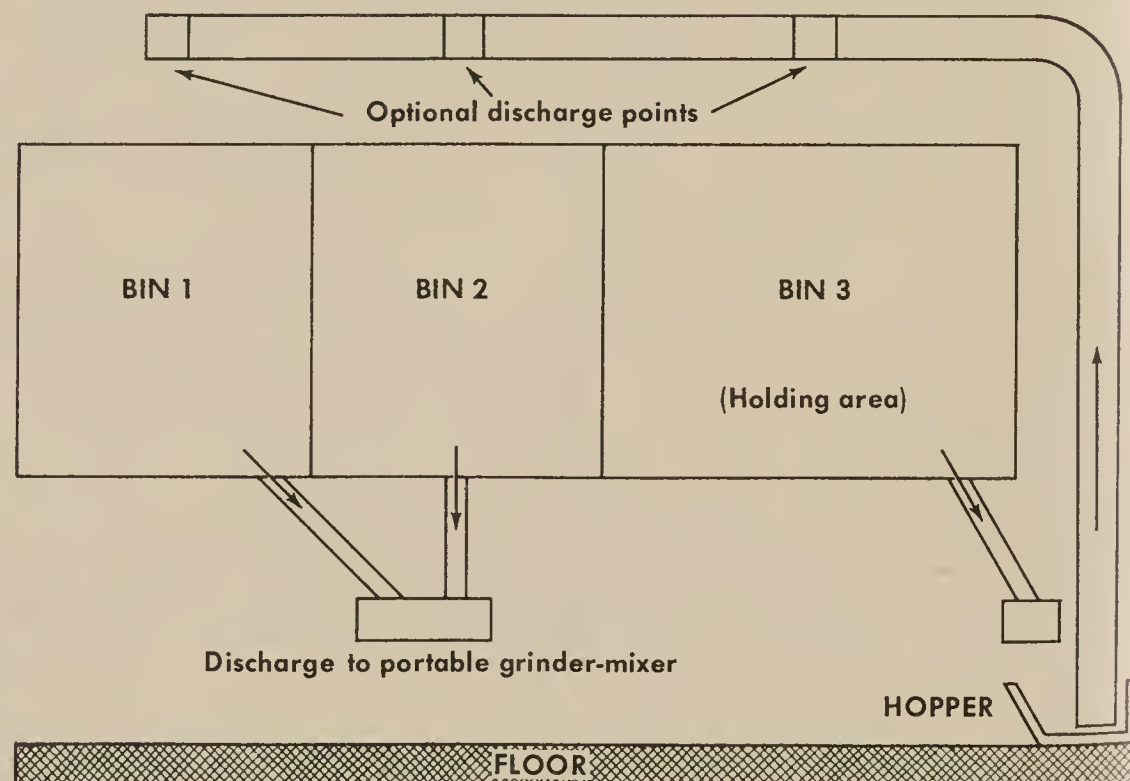
Mechanized

The two smaller bins discharge into the portable grinder-mixer; the larger bin delivers to a hopper that in turn is equipped with a conveyor delivering to either of the three bins. The hopper also receives any grain brought in to be stored for future use ... whether home-grown or purchased. If home-grown oats are a bit high in moisture, they can be circulated to prevent heating.

A ventilation fan is located so that it is on the wall near the bell dust collector on the portable mill, drawing away dust from grinding and mixing.

Because the mill is a tractor pto-operated one, the Barbours designed the structure so the tractor exhaust stack remains just outside the building during the milling process. The big opening for equipment is closed with a 10½-foot door that slides straight up into the wall above, offering no complications as far as head room is concerned.

(Continued on page 25)



A simplified drawing of the Barbour's grain handling system. Optional discharge openings are regulated by metal sleeve sliding along pipe that fully encloses auger above bins.

BLOATED ONES

Scientists at the University of Wisconsin have pinned down the enzyme in forage responsible for cattle bloating. R. E. Nichols and Dawson Deese are studying this enzyme — pectin methyl esterase, or PME for short.

The enzyme reacts with pectin, a common material in forages, and changes it to pectic acid and alcohol. Pectic acid, in turn, reacts with calcium or related elements in the rumen, and produces a sticky substance. The sticky material traps carbon dioxide and other gases formed in digestion . . . and as the gas accumulates the rumen swells.

Grass contains the lowest amounts of PME; alfalfa hay tested contained about four times as much; green alfalfa contained 18 times as much. Bromegrass, birdsfoot trefoil and alfalfa tested after being frosted at a temperature of about 27 degrees F. showed great differences in PME content. In this case bromegrass showed lowest; birdsfoot trefoil contained 10 times as much; and alfalfa 16 times as much PME as bromegrass. All of which agrees with the observance of bloat on frozen forage. Bromegrass almost never causes a problem, birdsfoot trefoil is said to be nearly bloat-proof, and alfalfa is sometimes dangerous.

Nichols has methods and materials under test that can delay the activity of PME in the rumen of cattle, and thus prevent bloating.

Feed handling

(Continued from page 24)

Jim can prepare a ton of feed in 20 minutes, including the addition of 32 percent protein supplement, beet pulp, and minerals. He discovered early, after popping a couple of bearings because of an over-full tank, that one should experiment a bit on total capacity of a mill rather than accept the manufacturer's rating. His rig was rated at two tons capacity, but it takes a big volume of bulky feed to weigh two tons . . . he plans on one-ton batches now.

Corn Crib

A corn crib stands next to the grain handling building; ear corn is pulled by conveyor into the mill. There is still some muscle power required to shovel ears into the conveyor hopper in the crib, but the Barbours are planning on how to mechanize this too.

Winter grain ration for the 40-cow herd normally contains 14 percent protein, but if hay is poor it's boosted to 16 percent. Corn silage is fed as a roughage in addition to hay.

The Barbours figure on a saving of \$10 per ton on feed over having it ground and mixed commercially. They like the idea of making a fresh batch whenever they need it. They have a marvelous view from their farm located high in the hills of Susquehanna County, but the other side of the coin is a long, steep haul of home-grown grain out to the mill and back to the farm . . . unnecessary with on-the-farm milling.

American Agriculturist, October, 1965

Hawley

(Continued from page 10)

eyes. This has been encouraged by the Government program on feed grains; acres have been diverted to soybeans. The price of beans has been pretty good and export demand continues high. Of course, returns are up due to better yields, too. Since the early days of soybeans in Illinois there has been a trend to closer planting, better weed control, more fertilization, and better-yielding varieties, as well as shorter season varieties.

Most of us in this area recall when a few soybeans were grown here back in the thirties. At that time, getting beans ripe in the fall

was almost as serious a drawback as was the small yield. It's discouraging to think that 30 years later we still aren't growing soybeans in an area which always has had to buy protein. Surely a crop which has been bred to be profitable in areas with a relatively short growing season could also find a place here if enough research were done to get adapted varieties.

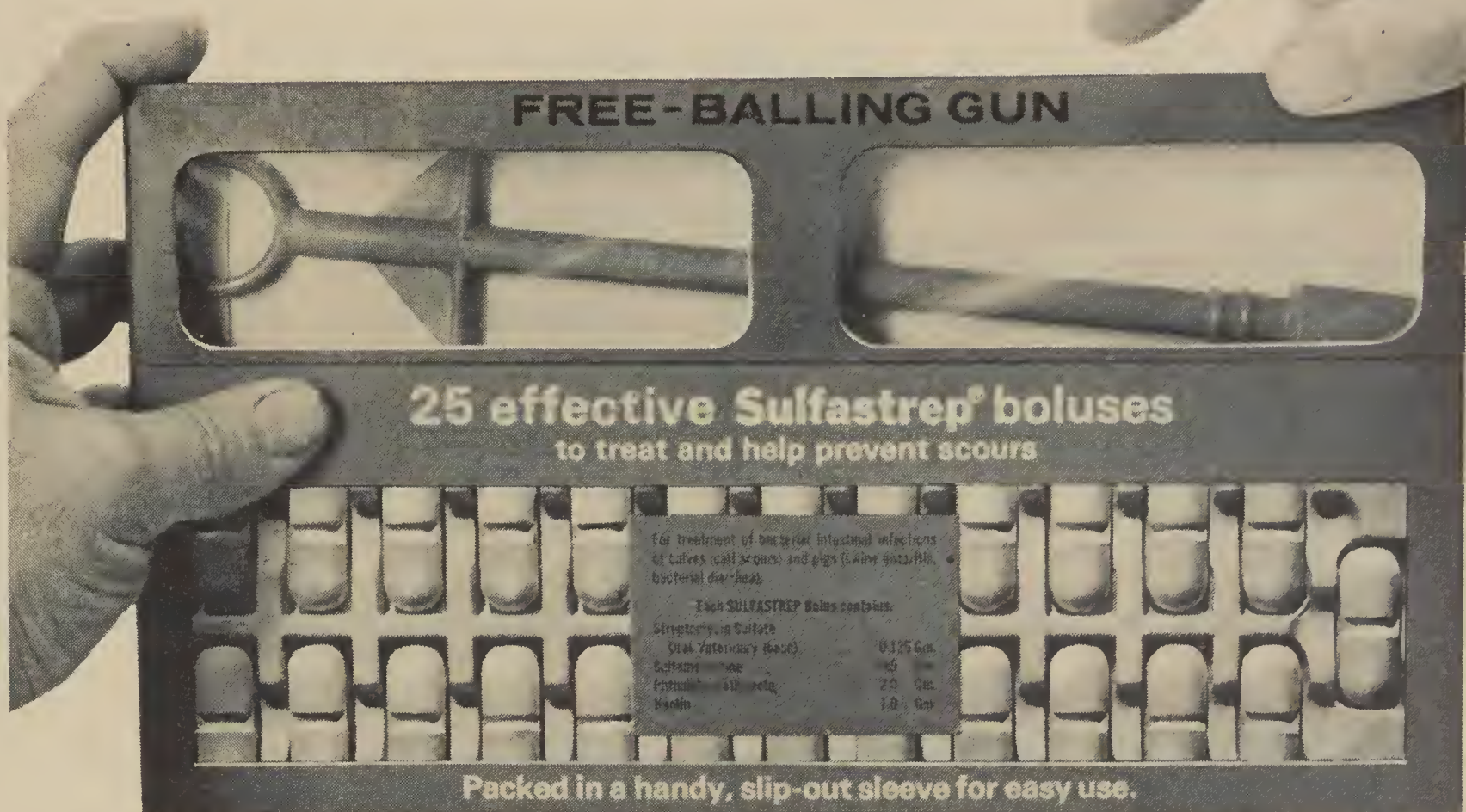
For years many Midwest farmers swapped a ton of beans for a ton of soybean meal. With the kind of yields now possible out there and at the price of beans and soybean oil meal, this adds up to a very nice gross and net per acre. I'm for additional effort to see if

we can't get a piece of this business here in the Northeast.

WATERING COWS

We started out watering the cows in our barn from buckets (3 at each end of each of the rows of free stalls). Later we switched to two big tanks at one end away from the parlor. This is a vast improvement. The cows used to stop at the buckets as they came from the parlor, creating a traffic jam. Now as many cows can drink at once as want to and, of course, the tanks being at the opposite end of the barn there is no traffic tie-up. The only drawback to the tanks is the tendency of one old gal to want to soak her front feet. Otherwise, everything favors tanks!

Calf Saver:



New Sulfastrep scours kit with free balling gun —helps you save scouring calves —heads off scours before it starts

You get 25 powerful SULFASTREP® boluses, each with four dependable working ingredients, plus free, high-quality, specially designed balling gun.

*look for this display
in your dealer's store*



Animal Health Products
Merck Chemical Division, Rahway, N. J.



SULFASTREP is the registered trademark of Merck & Co., Inc., for streptomycin with sulfamethazine, phthalylisulfathiazole and kaolin.

This Is THE HEART Of A Good Milking System!



FASTER MILKING

GENTLER MILKING

MORE PROFITABLE MILKING

TROUBLE-FREE

It's the All-New Transistorized
DARI-KOOL BOU-MATIC
ELECTRONIC PULSATION CONTROLLER

CUTS MILKING TIME REDUCES UDDER IRRITATION

With Separate Controls For Front and Back Quarters—

The normal cow produces about 40% of her milk in the front quarters — 60% in the back quarters. With separate pulsation controls vacuum is applied slightly longer to the heavier producing back quarters. This equalizes milking. Single-action pulsators overmilk the front teats.



VISIBLE MILKING

Milks Faster—With Safety—

With separate pulsation controls the front and back quarters are milked separately. The milk is removed rapidly and safely during the cow's peak let-down period. Alternate pulsation helps stabilize vacuum at the teat end for proper rest, teat massage and blood circulation. Get better milking for your cows with Bou-Matic pulsation.

PROFITABLE DEALERSHIPS AVAILABLE



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With an Effective Program of
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Please rush, without obligation, the new Dari-Kool Bou-Matic Milker Catalog.

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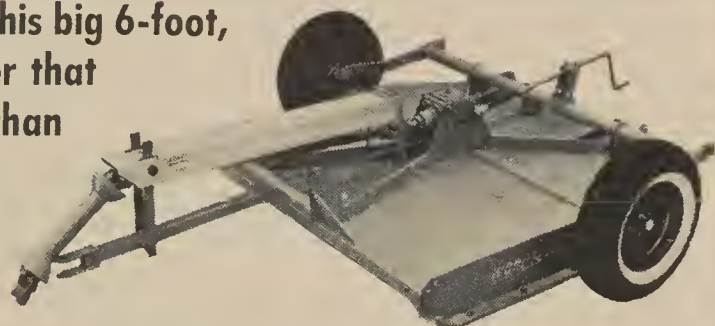
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FARMING LESS THAN 300 ACRES?

Save money with this big 6-foot, 2-row rotary cutter that costs less to own than many 5-footers

WOOD'S
Cadet 72
ROTARY CUTTER



Mounts all standard 3-pt. hitches — IH 2-pt. fast hitch — AC snap coupler.

Pull-type wheels may be carried in center or trail at rear.

The Wood's Cadet 72 will clip your pasture, chop your stalks, cut brush & weeds, and can be converted to a hay mower in less than 5 minutes.

See your implement dealer or write Dept. 50510 for complete information.

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Doc Mettler Says:

A PERPLEXING PROBLEM

ORDINARILY I don't like arguments, because they never come to any conclusions. An exception to this is an argument about which is the best month of the year. True, a conclusion is never reached, but the arguers bring out all the good points of the various months. And if one listens instead of talking he can find out why various acquaintances like to live in the country, and learn quite a little about their personalities.

October seems to be the favorite month of more people than any other, with May and June close seconds. Farm animals must like October quite well, because fewer get sick then than in any other month. This at least gives their owners a chance to make plans for the harsh months ahead.

Last October one of the better farms in our valley had a perplexing problem. Calves which had been sleek and healthy all summer at about seven to twelve months became "rough." They developed diarrhea, and seemed to get smaller instead of larger.

Internal parasites were suspected, and sure enough, stools on some of the calves did show stomach worms even though they had been inside most of their lives. They did go out to a small barnyard for sun and exercise, but there was little reason to change anything except to worm them. Some responded . . . but one died. This one had tapeworms in her intestines, which we had not seen in this area before, and this was thought to be the cause of the few who did not respond to stomach worm treatment. Thereafter, when a calf looked rough or developed diarrhea it was wormed for both stomach worms and tapeworms.

"New Virus"

Fall led into winter, and still an occasional eight to ten-month-old calf would develop diarrhea. Some responded to treatment, but two more died. Autopsy revealed nothing as far as worms or pneumonia were concerned. Tests for Johne's disease were negative, as were tests for coccidia, virus diarrhea, and other diseases that could cause such symptoms. In this same group of twenty calves some remained as sleek and growthy as the usual animals on this farm had been in previous years.

It was determined that the worm problem had been started a year or two before by a young bull brought in to breed heifers. Still, animals without worms or other diagnosed disease died, or were sold for dog food when death was imminent. As is usually the case when we modern veterinarians are faced with an undiagnosable disease, we presumed it was "some new virus."

The religious man goes on an occasional "retreat" to think out his problems. A farmer or veterinarian doesn't often have time for this long a retreat, but he can on

occasion solve problems on short retreats of thought into his past experiences . . . the one perhaps while driving a tractor through the fields, the other driving his car on a distant call. When up against a solid wall of "no diagnosis," sometimes the only way to an answer is a complete retreat of thought and a fresh start.

The Answer

On this case the answer was not discovered until one cold, raw, miserable day in March. One of the dead animals was being autopsied in an old gravel bank where two of her sisters had previously been buried. It was decided by the veterinarian and the farmer that they would forget all about the previous discoveries of stomach worms and tapeworms and look at this dead heifer as if she was a completely new case. Yes, there it was. The liver was off-color, sort of a yellow-orange; the reticulum, or second stomach, contained a handful of small stones; the stomach walls were red, and nearly ulcerated through in places. It could be worms, it could be virus, but then, too, it could be poison.

Samples were sent to the State Police Laboratory, and a search was made of the small barnyard in which the animals exercised. Here was the answer to why the worm medicine didn't work any more. The putty was chewed out of each window the calves could reach. The paint was licked off the sides of the barn, and much licking had been done in one corner where a storeroom had once stood and the old foundation showed through the dirt.

The heifers and calves were put out of this barnyard and kept out, and to date no more have died. Weeks later, when the report from the overworked State Police Laboratory arrived, the diagnosis was confirmed. Lead, plus copper and phosphorus, were present in the stomach contents and liver of this dead animal.

Why can we use a yard for years in safety and suddenly have animals discover poison buried in a corner? Perhaps the answer is "luck;" more likely it is simply a matter of time until one animal more curious than the others starts to lick in the right place. Why do we veterinarians miss a diagnosis like this until after several animals have died? Again, it is not luck, but a matter of time. For years two and two added up to four, and then all of a sudden a silent or unseen "one" is added, and the answer of four should be five.

The undiagnosed illness will continue to crop up. Usually it will be something new, but every once in a while it will be something old and obvious for which we need a "retreat" before we can make a diagnosis. The veterinarian or farmer alone can't find the answer, but working as a team they usually do.

American Agriculturist, October, 1965

Tractor fuel storage

(Continued from page 8)

- or blocks to prevent corrosion.
- (b) Use tight, permanently-attached pumping device.
- (c) Include an effective anti-siphoning device in the pump discharge.
- 6. Provide a lock for the tank valve.
- 7. Be sure that above-ground tanks are grounded for lightning protection.
- 8. Mark the tank "INFLAMMABLE — KEEP FIRE AND FLAME AWAY."

than wait till the next morning. This practice helps reduce formation of water by condensation from air in the tank.

The fuel storage tank, whether above ground or buried, should be arranged for easy draining of accumulated water and for easy cleaning.

An above-ground tank should be tilted, with a drain valve at the lower end, and the hose at the higher end. This arrangement allows the water and sediment to settle and accumulate without danger of getting into the tractor.

Underground tanks require a slightly more complex arrangement. A drain pipe must be extended vertically from the low end of the tank to the surface to permit

periodic pumping out of the sediment and water. The suction pipe for the regular filler pump should be at the higher end of the tank and several inches above the bottom of the tank.

Either of the above arrangements permits the tank to be cleaned even though it has fuel in it. The tank should be emptied completely occasionally to remove all sediment and water.

Airborne dust is a difficult source of contamination to eliminate. As fuel is withdrawn from the storage, air must enter to replace the fuel. Normally, the filters on the tractor are adequate for removing this type of contamination from the fuel. However, if you wish to prolong filter life on your

tractor, or have to store fuel under especially dusty conditions, you may wish to consider a fuel storage tank filter.

When selecting a filter there are several factors to be considered: For example, the filter should be fine enough to remove particles 50 microns (195 millionths of an inch) in diameter.

Another important factor is filtration efficiency. This establishes the percentage of each particle size that the filter will remove; in other words, how well the filter does the job. The filter should have enough capacity to pass the fuel at the usual rate of filling the tractor tank. Otherwise, refueling becomes a long, slow process.

Diesel Fuel

Diesel fuel is less volatile than gasoline, and thus does not as readily form dangerous, explosive vapor. However, diesel engines are particularly sensitive to dirt or contamination in the fuel. Thus, extra precautions are usually necessary in storing and handling diesel fuel.

The necessary precautions can be summarized in two rules: Buy clean fuel; keep it clean.

Usually if you buy diesel fuel from a reputable dealer, clean fuel will be delivered to your tank. However, fuels may occasionally become contaminated in dealer storage, or they may be hauled in tank trailers that have not been thoroughly cleaned after hauling other petroleum products. Therefore, if at all possible, allow at least 24 hours for settling of impurities and water between delivery of fuel and withdrawal from the tank.

Contaminants

The storage tank may contain water, dirt, and sediment. Rain-water and airborne dirt can enter the tank because of an improper vent or because someone forgot to replace the filler cap. Condensation of moisture-laden air in a partially-full tank is another source of water.

As long as these contaminants settle to the bottom of the tank they cause no difficulty; however, fuel delivery usually stirs the settled mixture. Here's another good reason for waiting as long as possible after delivery before using fuel from the tank.

Diesel fuel should be stored in large tanks, and used directly from the tank. It may be more convenient to fill several five-gallon cans and take the fuel to a tractor working in the field, but the chances of contamination are greatly increased by this extra handling. The extra time required to bring the tractor to the regular storage tank is usually worth while.

Water can corrode the injector nozzle tips very quickly. If your tractor has a special trap in the fuel system for sediment and water, be sure to drain it as often as recommended in your owner's manual.

Fill the tractor tank at the end of each day's operation, rather



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ELEVATORS FOR THE FARM

by Wes Thomas

ALTHOUGH mechanically simple, portable elevators can greatly reduce "back-work." However, this very simplicity makes many users indifferent to their maintenance, operation, and safety procedures.

Here are some points for obtaining better and safer performance from your elevator:

Lubrication — Even though the elevator is not a high-speed machine, adequate lubrication is still essential. Use good quality pressure-gun grease on all the fittings, and be sure that all the bearings accept grease.

Regular oiling of the main-flight chains and any intermediate drive chains is necessary. Crankcase oil can be applied easily with a paint brush, but do so only when the elevator is stopped.

Sheet Metal and Frame — Most elevators have many riveted or bolted joints in the sheet metal and in supporting framework. All joints should be checked occasionally; any that are loose should be repaired.

Chains that are too loose buckle and catch, but if too tight, they heat and fail prematurely or cause bearing overloads. Check your manual for the proper chain tension on your elevator. Recheck the chain under load. When elevating heavy material, increased chain tension is required.

On most elevators, the chain tension is adjusted by tighteners at the top of the elevator. Take up uniformly on each side for the flight chains. You will eventually run out of adjustment as the chain wears; it will then be necessary to remove one link from each side.

Getting enough slack to allow the end links to turn to the proper angle for reassembly is sometimes a problem. One convenient means of "pulling up" the chain is to use an over-center chain tightener such as is used to tighten log chains on a load. Hook the tightener into the links on either side of the closing point and pull up the required amount of slack.

Power Supply — Elevators are powered in a number of ways . . . gasoline engines, electric motors,

or tractor pto. Service the gasoline engine the same as any other small engine; be especially careful to clean trash and dirt off it. An electric motor should be kept clean, and the cord should be checked frequently for any signs of loose connections or breaks in the insulation. If you use a tractor pto-drive, check the condition of the bearings, couplings, and telescoping shaft.

Elevator Safety — Elevators can be more dangerous than many users realize. Undercarriage collapse is one of the most common fatal elevator accidents. It usually happens like this: The elevator is raised to a high position and then it becomes necessary to move it a very short distance. The operator doesn't think it necessary or even practical to lower the elevator.

As the lower end is raised, the machine becomes topheavy, and the balance point is passed. If there is no restraining device to prevent the upper end of the derrick from pulling away from the track, the wheels will roll toward what was originally the lower end of the elevator, and the entire machine will collapse.

If your elevator has this safety hazard, you can remedy it by adding a rod or a strap beneath the roller shaft. Support the rod at each end by brackets fastened to the framework. Make the rod long enough to permit normal travel of the roller.

Cranks — Most elevators have some sort of a hand-operated crank for raising and lowering. Some arrangement should be provided to stop the crank if you lose control when raising or lowering the elevator. Otherwise, the weight of the elevator will cause the crank to spin freely.

The crank lock should operate automatically. Too often, manually-operated stops are located so near the crank that you cannot safely reach them once the crank is spinning. All drive chains and belts should be properly shielded. Even though they may be slow moving, they are nonetheless dangerous.

(Continued on page 31)

American Agriculturist, October, 1965

Food For The Spirit



by Robert Clingan

WORK . . .

CURSE OR BLESSING?

To some, work is one of life's richest blessings; to others it is a curse that must be endured. Yet it is in our work that we spend most of our waking hours. Can it become a source of joy and blessing even if it has already become a burden? I believe it can if we meet most of the following conditions:

Use our own judgment in regard to the way we value our work.

It is not how someone else thinks about it, judging by the price tag of our society. Rather, it is how important it is to ourselves . . . and how important we ourselves know it to be to our society.

For example, years ago the United States census forms listed a woman who was a housewife and a mother as having no occupation. Every real mother of the time knew that she had one of the most important occupations in the world. Because she was underpaid for the long hours she put in, or unrecognized by her government, made no real difference in the joy she found in her work and the satisfaction she found in the life of her children.

See the end product served by the work in which we engage. This is the curse of automation and the whole process of machine line production. It has raised the American standard of living, and made our nation the envy of the world . . . yet so often the man who simply pulls a lever, or sorts screws, or watches a set of gauges, does not know what he produces or how important he is to the entire process.

Elevators

(Continued from page 30)

If a small engine or an electric motor is used as a power source, it must be protected from falling objects, such as bales of hay or ears of corn. Additionally, hay leaves or straw may fall on the engine and build up around the hot exhaust pipe and muffler. A sharp lookout should be maintained to prevent the accumulation of such a fire hazard.

The steel cable used for raising and lowering should be checked occasionally. If the cable is worn or frayed it should be replaced immediately. If the cable breaks, it will allow most elevators to fall to the ground.

If the elevator contacts a power line while you are moving it with a tractor, use extreme caution in getting it loose. First, jump, don't climb, off the tractor. Thus you avoid touching the ground and the tractor at the same time. Then do not touch the tractor or the elevator until the power is shut off.

Find creative and imaginative new ways of doing our work.

So often our work needs to be lifted out of the dead routines of monotony and dread. During my college days I visited the home of my room mate who lived on a California walnut ranch. With excitement and enthusiasm he showed me the equipment his father was installing for picking the walnuts, hulls and all, and treating the hulls with a gas that would bring them to the point of dropping from the nuts. The boy was excited with this new development in which he was sharing in both the planning and the building. His father later said to me: "I could get along without this equipment, but I knew it would keep my son interested."

All of us, no matter what our work, would find it far more interesting, not only to ourselves but to our children, if we could find creative and imaginative ways of doing it better.

Discover the comradeship of toil in which we can enjoy fellowship with those with whom we work. The good-natured banter of the harvest, the office coffee break, or around the time-clock in a factory, can lift the spirits of those engaged in a work that otherwise would be only an exacting and exhausting routine.

Accept our work as a gift of God. God has given us the gift of work for the development of our skills, minds, and talents. It is the means by which we provide for

our needs and those of our families. It gives us a chance to minister to the manifold needs of people around us . . . and also people we will never see. Work is the opportunity to make our lives meaningful and significant. Thank God for the gift of work.

Try to discover the secret of saintly Brother Lawrence, who wrote "Practising the Presence of God." His discovery came when he was assigned to the kitchen work of the monastery and found it offensive and revolting. By "practising the presence of God" his work became a source of satisfaction. His book is worth our reading. Every person can "practise the presence of God" in his daily work.



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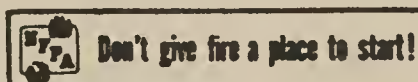
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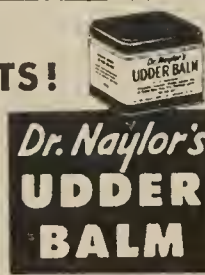
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Junior Champion — Meredith L.R. Incid, Meredith Farms, Topsfield, Massachusetts.

BULLS:

Senior and Grand Champion — Lippitt Nolly, Strath-holm Farm, Port Chester, New York.

Reserve Grand Champion — Jackson Hill Shelly, Atherton Family, Greenwood, New York.

Junior Champion — Strath-holm Nice Mike, Strath-holm Farms, Port Chester, New York.

BROWN SWISS

FEMALES:

Senior and Grand Champion — Hidden View Sue A, Lee's Hill Farm, New Vernon, New Jersey.

Reserve Grand Champion — Empire's Ann L, Empire Farms, Palmyra, New York.

Junior Champion — Hidden View Della B, Hidden View Farm, Washington, New Jersey.

BULLS:

Senior and Grand Champion — Welcome in Dorian, Valley Echo Farms, Bergen, New York.

Reserve Grand and Junior Champion — Hidden View Scranton, Edward H. Behre, Washington, New Jersey.

GUERNSEY

FEMALES:

Senior and Grand Champion — Blakeford Brilliant Bonita, Henry C. Venier, LaFayette, New York.

Reserve Grand Champion — Claire Haven Paul Flute, Henry C. Venier, LaFayette, New York.

Junior Champion — Welcome Fortune Jean, Willard & William Peck, Schuylerville, New York.

BULLS:

Senior and Grand Champion — McDonald Farms B Grand Duke, McDonald Farms (Cornell University), Cortland, New York.

Reserve Grand Champion — Wileeda Arti-M Glenn, Martha L. Pengelly, Bergen, New York.

Junior Champion — Dewan Farms NE Ebb Tide, Mutual Milk Sales, Inc., Oneida, New York.

HOLSTEIN-FRIESIAN

FEMALES:

Senior and Grand Champion — Dann Farm Aristocrat Carol, Delos P. Dann, Middlesex, New York.

Reserve Grand Champion — Collins-crest Ivan Gypsy, Donald

Collins, Malone, New York.

Junior Champion — Hillaire Admiral Shadowisle, Hillaire Farms, Millbrook, New York.

BULLS:

Senior and Grand Champion — Weller Farm Fay Hope, William A. Weller, Lowville, New York.

Reserve Grand Champion — Gladibrae Citation Traveler, R. Clifford Cook, Burke, New York.

Junior Champion — Ashawang Admiral of Hillside, Hillside Farms, Inc., Cranston, Rhode Island.

JERSEY

FEMALES:

Senior and Grand Champion — Spruce Avenue Margo Cynthia, Heaven Hill Farm, Lake Placid Club, New York.

Reserve Grand Champion — Golden Commando Etta Scotty, Vancluse Farm, Newport, Rhode Island.

Junior Champion — Dazzler's Tarita, Vancluse Farm, Newport, Rhode Island.

BULLS:

Senior and Grand Champion — Wallflower Givia Joe, Heaven Hill Farm, Lake Placid Club, New York.

Reserve Grand Champion — Jester Basil Julian, Vancluse Farm, Newport, Rhode Island.

Junior Champion — Brown's Masterman, Heaven Hill Farm, Lake Placid Club, New York.

MILKING SHORTHORN

FEMALES:

Senior and Grand Champion — Mystery Scarlet Marilyn, Louis M. Brooks, Hope, Rhode Island.

Reserve Grand Champion — White's Patsy Jane, J.M. & H.M. White, Marathon, New York.

Junior Champion — White's Lily B, J.M. & H.M. White, Marathon, New York.

BULLS:

Senior and Grand Champion — Mystery Histon Prince, Louis M. Brooks, Hope, Rhode Island.

Reserve Grand Champion — White's Double Duke, J.M. & H.M. White, Marathon, New York.

Junior Champion — Champion Barrington, Champion Farm, West Winfield, New York.

ABERDEEN ANGUS

FEMALES:

Senior and Grand Champion — Meadow Lane Pride 6, Meadow Lane Farm, North Salem, New York.

Reserve Grand Champion — Haystack Blackbird Blossom 12, Meadow Lane Farm, North Salem, New York.

Junior Champion — Walbridge

(Continued on page 33)

Georgina 16, Walbridge Farm, Millbrook, New York.

BULLS:

Senior and Grand Champion — Ebony Bardoliermere, Meadow Lane Farm, North Salem, New York.

Reserve Grand and Junior Champion — Rally Jemal, Rally Farms, Millbrook, New York.

HEREFORD

FEMALES:

Champion — FLF Modest Miss 24, Falklands Farm, Schellsburg, Pennsylvania.

Reserve Champion — C U Mischief Miss 54, Cornell University, Ithaca, New York.

BULLS:

Champion — FLF Modest Mixer 19, Falklands Farm, Schellsburg, Pennsylvania.

Reserve Champion — FLF Modest Mixer 1, Falklands Farm, Schellsburg, Pennsylvania.

SHORTHORNS

FEMALES:

Senior Champion — Strathore Fairy Violet 2nd, Strathore Farm, Indian River, Ontario, Canada.

Grand and Junior Champion — Glen Cove Lavender Lady 4th, Glen Cove Farm, Windsor, New York.

Reserve Grand Champion — Sangamon Gloster, Sangamon

Farm, Dewittville, New York.

BULLS:

Senior and Grand Champion — Glen Cove Principal, Shaker Farm, Windsor, New York.

Reserve Grand Champion — Glen Cove Forward, Algird F. White & Sons, Ghent, New York.

Junior Champion — Glen Cove Fortitude, Glen Cove Farm, Windsor, New York.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot — J. W. Cook & Sons, Trumansburg, New York; Columbia — East View Farm, Pavilion, New York; Corriedale — East View Farm, Pavilion, New York; Dorset — Stumbo Farms, Lima, New York; Hampshire — Van Vleck Farm, Woodbury, Connecticut; Montadale — Dr. F. E. Lindblom and Son, Jamestown, New York; Oxford — Knollview Acres, Camillus, New York; Rambouillet — Twin Pine Farm, Nichols, New York; Shropshire — W. Keith Stumbo, Lima, New York; Southdown — J. W. Cook & Sons, Trumansburg, New York; Suffolk — Daniel Fitzpatrick, Wayland, New York; Tunis — Rita Ann Cook, Trumansburg, New York.

Exhibitors of champion ewes in the various breeds were:

Cheviot — Brooklea Farms, Bath, New York; Columbia — East View Farm, Pavilion, New York; Corriedale — Timothy Fitz-

patrick, Wayland, New York; Dorset — Stumbo Farms, Lima, New York; Hampshire — Whip-poorwill Farm, Marlborough, New Hampshire; Montadale — Dr. F. E. Lindblom & Son, Jamestown, New York; Oxford — Edwin Fiske, Newark Valley, New York; Rambouillet — Harry E. Clauss, Canandaigua, New York; Shropshire — Kenneth T. Moore, Nichols, New York; Southdown — J. W. Cook & Sons, Trumansburg, New York; Suffolk — Joseph Lawson, Pavilion, New York; Tunis — Brooklea Farms, Bath, New York.

SWINE

Championship ribbons in the swine breeds were awarded as follows:

Berkshire — Grand champion boar, Walter Lichtenwalner & Son, Emmaus, Pennsylvania; grand champion sow, Scottown Farms, Slippery Rock, Pennsylvania.

Duroc — Grand champion boar, David Hartman, Gratz, Pennsylvania; grand champion sow, Busy Acre Farms, Allentown, Pennsylvania.

Hampshire — Grand champion boar and sow, Ralph Blik, Williamson, New York.

Landrace — Grand champion boar and sow, Green Haven Prison, Stormville, New York.

Poland China — Grand champion boar, Clair Hartman, Gratz, Pennsylvania; grand champion sow, Richard P. Sholley, Jones-town, Pennsylvania.

Yorkshire — Grand champion

boar, Dennis Feitshans, Akron, New York; grand champion sow, Umbrian Farms, Lafayette, New Jersey.

Champion barrow — Ralph Blik, Williamson, New York.

RAM PROGENY TESTING

During the past two years, Professors Warren Brannon and R.W. Bratton at Cornell University have been progeny testing purebred rams for their ability to produce lamb meat. Records were obtained on each ram's rate and efficiency of gain, fertility, and the weaning weight of his progeny.

To date, 8 Dorset and 10 Hampshire rams have been tested. These rams were selected from several purebred flocks and brought to Cornell when they were 3 months old. They were immediately put in individual pens or stalls and fall-fed a complete-pellet ration for 60 days. Complete records were kept on the rate of gain per day and the amount of feed required for a pound of gain.

During late summer and the fall months, these rams were then mated to ewes within farm flocks scattered about the State. This was accomplished by synchronizing the ewes for grouped breeding.

Three of these rams were sold at a recent purebred sheep sale at Cornell, bringing an average price of \$95 each.

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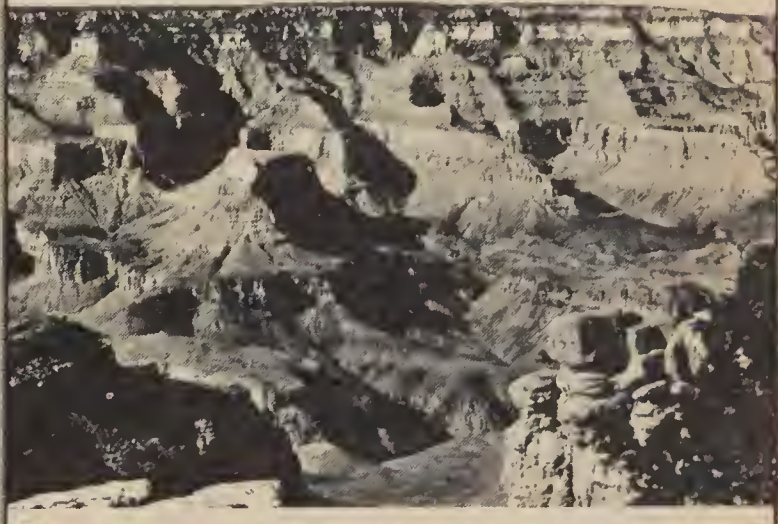
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Harold Funkhouser, manager of Lupen Orchards, points to weed kill around young apple trees ten days after herbicide application.

ORCHARD HERBICIDES

by Tom Walsh

MANY OF the fruit growers around Martinsburg, West Virginia, have added chemical weed control to the already long list of pesticide sprayings scheduled throughout the season.

After a three-year drought period, Fred C. Matson became convinced that weeds were sapping away moisture and nutrients from the soil. He sprayed several acres of apple trees with Amizine herbicide in 1964, as recommended by the West Virginia Experiment Station, and continued the practice this year. His total apple production from Lupen Orchards varies between 100,000 and 125,000 bushels per year.

Kenneth McDonald, another orchardist in Martinsburg, claims the results of his initial experiment with Amizine were "very striking, and in many cases still showed even through the winter." He claims he didn't achieve the same results on all of his acreage, but got excellent growth despite extremely dry weather.

McDonald sprayed 175 acres of apple trees in 1964; this year, he applied the chemical earlier in the season, just after weeds emerged, before apples started to form.

After seeing the results, two other apple growers in the area, Charles and Otho Lewis, have also established a weed control program. The chief objective of their weed control sprayings is to elimi-

nate the time and expense of cross-mowing and disking the farm's 100 acres of apple trees; they also want to eliminate weed competition for the available moisture and nutrients.

Otho Lewis, after constructing his own sprayer rig, found himself advising other orchardists on making theirs. A wheel supports his 3-nozzle, 32-inch spray boom at the end of an angle iron attached to the frame and bumper of his tractor. A flexible hose connects the sprayer to the tractor-powered low-pressure pump.

The boom is long enough to reach under overhanging branches and adjusted to a height which gives weeds and grass a thorough soaking. Nozzles which discharge a flat spray pattern further insure uniform application, and a fast operating shut-off control is located to the right of the driver's seat.

The spray nozzle section at the end of the boom is fastened to supporting angle irons by a spring-loaded pivot. Thus, if the driver should accidentally strike a tree while spraying, the end of the boom flexes back without breaking the boom or skinning the bark on the tree. Besides being a safety factor, this arrangement offers the driver a measure of assurance, allowing him to apply the herbicide close to the tree trunk where weed control is very important.



Otho Lewis built this rig that has "snap back" section of boom that prevents hurting tree trunk.



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COMPLICATED BALLOT

New York State voters will be faced, come November 2, with a bewildering array of choices to make in addition to candidates for office. There are three propositions, one question, and nine amendments facing the person closing the curtain on the voting machine.

Proposition One authorizes the State to issue \$1 billion in bonds to fight water pollution by paying up to 60 percent of the cost of constructing community sewage treatment facilities. Costly as it is in total, it looks as though something has to be done soon, so AA-RNY advocates approval.

Proposition Two is that old theme song of public housing . . . authorizing an increase of the State's public housing debt by \$200 million and by \$9 million to subsidize rents of tenants already in public housing. The debt would then go to \$1.16 billion, and the annual rent subsidy ceiling to \$51 million.

This one has been turned down by the voters in one form or another a number of times. AA-RNY recommends turning it down again . . . even though the Legislature may once again blithely pass laws that will accomplish the goal anyway.

Proposition Three is more of the same . . . increase yearly cash subsidy for tenants in state public housing projects by \$13.5 million, simply expanding part of Proposition Two. Maybe we should join the welfare state tide and go live in public housing, but one more time let's be strong and resist the temptation . . . and vote no.

Question One calls for a Constitutional Convention to revise the State Constitution. This can already be done legislatively, with less expense and more opportunity for deliberation. Recommend vote no.

Most of the amendments allow changes in "mechanical" procedures of government. **Number One** allows more time for public and legislative consideration of the State budget (recommend "yes"). **Number Two** permits terms of office longer than four years for town court justices (recommend "yes").

Number Three would increase terms of state senators and assemblymen from two to four years beginning with November '66 election. This would make them less vulnerable to accountability to the electorate . . . but recommend "yes."

Number Four allows the State to provide nursing homes for low income persons, and permits loans for construction of nursing homes. Medicare and social legislation at federal level reduces need here, recommend "no."

Number Five is another housing subsidy maneuver, allowing state loans to partnerships and trusts for construction of middle-income housing. Recommend "no."

Number Six would permit constitutional amendment passed by *American Agriculturist*, October, 1965

one legislative session to be submitted to the next regular legislative session (now must be passed by two consecutively elected Legislatures). Recommend "no."

Number Seven seeks to expedite court cases in the New York City area; **Number Eight** allows exchange of acreage between the State and the town of Arietta; **Number Nine** increases pensions for certain employees of New York City. Recommend "yes" on these "housekeeping" changes.



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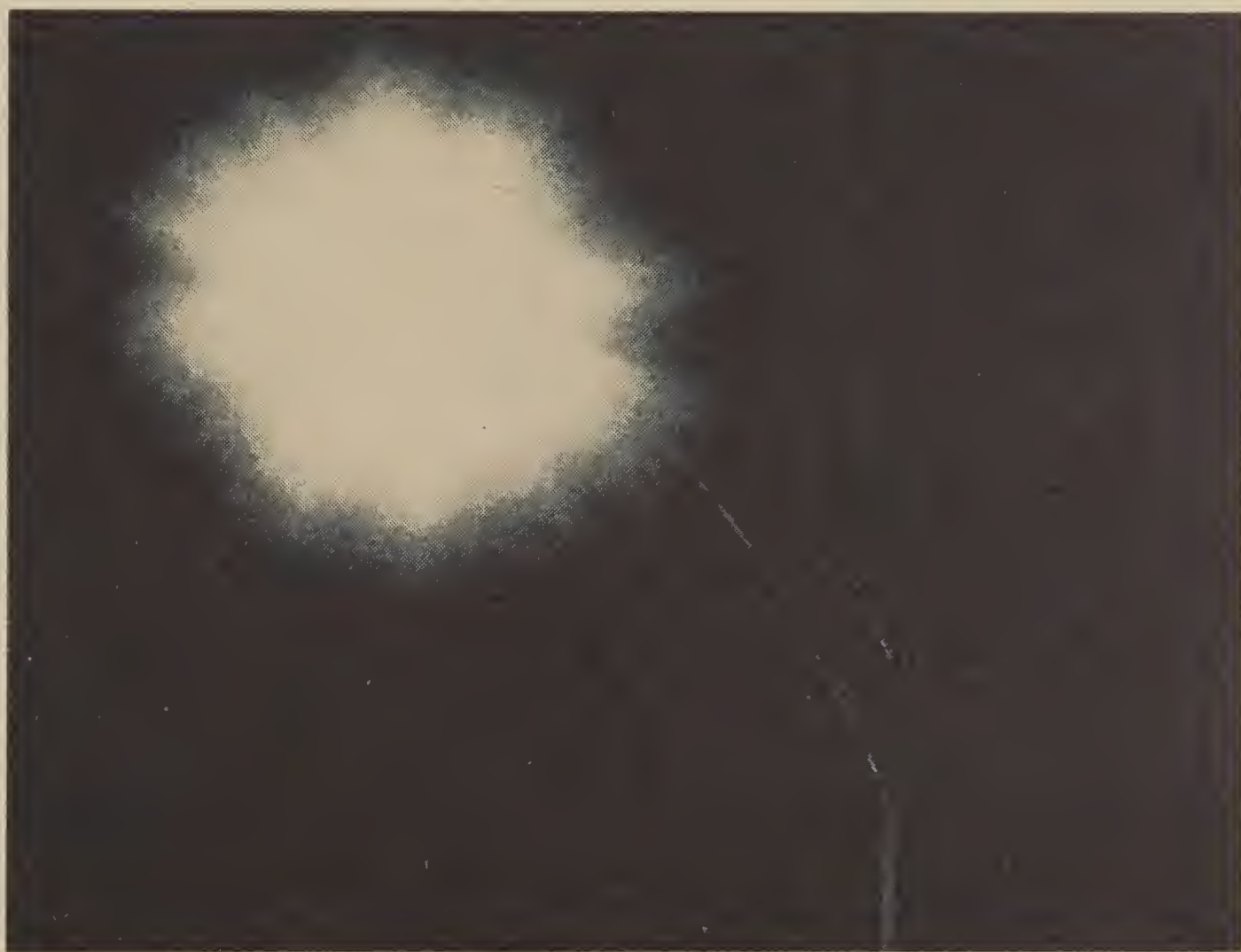
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Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
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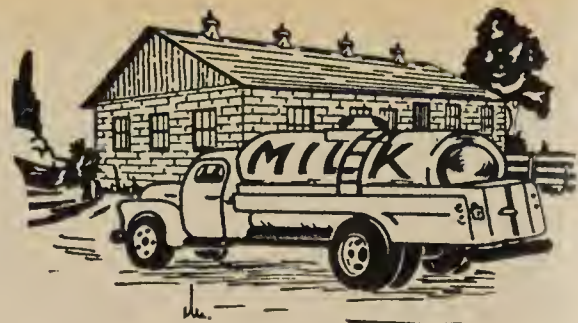
Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
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MILK MARKETING

by Gordon Conklin



THE AIR rings with charge and countercharge, with arguments pro and con... all about whether cooperative payments should be continued in the Federal Milk Marketing Order 2. Proposals fly thick and fast to replace the present system with a market service payment system.

Here's some background information:

— Under cooperative payment provisions, all producers are assessed (through deductions from their milk checks) for monies to go into the Producer Settlement Fund. These funds, in turn, are paid to cooperatives on the basis of the amount of milk shipped by members. The rate depends on numbers of members, and whether the cooperative had plant facilities for receiving 25 percent or more of members' milk. Some non-members of cooperatives gripe about having to contribute to cooperatives without having any choice in the matter.

— Order 2 is the only one of the 75 Federal milk orders in the country that has a cooperative payment setup. Most of the others have the market service payment plan, except for a few who have neither.

— Under a market service payment plan, the Market Administrator makes assessments only against dairymen who are not members of a qualified milk marketing cooperative... and does check weighing and testing for these producers, as well as providing them with market information. Co-op members pay for their market services through direct membership dues to their respective cooperatives.

Major Issues

The major arguments on record concerning the two systems of paying for market services go something like this:

— Proponents of cooperative payments say that they are designed to strengthen cooperatives and give them funds with which to carry on marketwide activities of benefit to all producers in the milkshed. Some experts claim that Order 2 dairymen are better informed now about the intricacies of milk marketing than they were previous to the initiation of information and education programs by milk cooperatives.

It's generally agreed that, if the co-op payment system is to be retained, there should be some changes made to correct deficiencies and fit it to changed conditions. For instance, it's suggested that when dairymen shift from one cooperative to another a six-month period elapse before the cooperative with the newly-acquired member can receive co-op payments figured on his milk. It's also pro-

posed that the rate of co-op payments be reduced, and that a greater share of co-op support be shouldered directly by members.

Others point out, though, that the percentage of all dairymen who are members of co-ops has not increased during the period co-operative payments have been in effect. They further claim that educational programs have proved less effective than they should have been.

— One of the touchiest points has been the charge that cooperative payment monies have been used for the construction of milk handling facilities. "Why," say some, "should all producers contribute to the erection of plants that are owned by cooperatives representing only a portion of all the dairymen who had to kick in the money?"

"Simple," retort other observers, "this is justified by the fact that co-op facilities do benefit all dairymen."

Bargaining Power

Several northeastern collegespecialists in milk marketing say that dairymen's bargaining power is pretty weak if they don't have alternatives when the chips are down... milk plants they control. One comments that the Mutual (now Northeast) plant at Oneida has tended to put a floor under the surplus milk situation... much to the disgust of some private handlers.

The regulated price structure for manufactured milk has been turned into a giant nutcracker... squeezing margins so small that there has been a decline in interest in this milk by proprietary handlers. Under these circumstances, some cooperative leaders feel that co-ops must have facilities to insure producers a market for their milk.

A recent example of the need for facilities in order to be successful at infighting with a proprietary handler is the Grandview Dairy case. Grandview was determined to impose a 10 cent per hundred-weight hauling charge on bulk milk; the Dairymen's League and Northeast Federation diverted nearly 400,000 pounds of milk daily to League facilities.

The action affected bulk milk producers over the entire Order 2 area, for it served as a test case for the imposition of bulk hauling charges in general. And the retention of at-the-farm pricing of bulk milk has prevented the forced conversion of can producers to bulk, a conversion sure to come within the next few years.

— The statement is made that cooperative leadership and management would be more sensitive to members if the cooperatives had

(Continued on page 39)

American Agriculturist, October, 1965

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Milk marketing

(Continued from page 38)

to get along on membership dues rather than cooperative payments collected from all dairymen.

— Cooperative payments are used by some co-ops to raid the membership of others, it is charged. The question is raised as to whether this is a constructive way to use producers' funds.

It's suspected by some observers that the fratricide going on for many years among cooperatives in the Order 2 area plays some part in the co-op payment debate. The fiscal stability of different co-ops, and the potential status of their management, would be affected to a differing degree by changes in the status quo. To at least some extent, there is probably involved a continuation of the long-standing jockeying for advantage among highly-motivated men from the "Big Three" co-ops involved.

In a highly-competitive world, this can hardly be termed a departure from the norm. And of course, co-op rivalry can perform the same check-and-balance function as having a two-party political system.

Further, some people are unhappy that Order 2 cooperatives use cooperative payment funds to finance efforts to modify other nearby federal milk orders. For instance, there is a proposal to incorporate the Delaware Valley order area into the Order 2 area, and cooperatives in Delaware Valley yell that they must fight this move with funds contributed voluntarily by their members.

This may account for the fact that practically every cooperative in areas surrounding Order 2 country has got into the act against cooperative payments. Economic self interest may also play a part because, particularly in Pennsylvania, cooperatives are sore because some Order 2 co-ops allegedly worked their way into Keystone State markets by giving kickbacks to handlers . . . in effect, lowering the cost of milk to those handlers.

Unrealistic Prices

Some experts claim that Pennsylvania milk pricing regulations are (and were) economically unrealistic . . . providing enormous incentives to try to work around them. Therefore, a cooperative who wanted to get the business in a market where Class I utilization and price was high had to compete tooth and claw . . . allegedly leading to some under-the-table returning of part of the official price required by the law.

If this did take place, it's likely that members of cooperatives who got their foot in the door of these attractive markets fared better, alleged kickbacks and all, than they would have if unable to move milk there. However, local co-ops got pried loose from a good deal, and so they are yelling to high heaven about the sins of sister cooperatives from the "Colossus to the North."

Order 2 dairymen have long

chafed under a situation where the dealer pools of Pennsylvania have held Class I utilization (and blend price) high by limiting the numbers of shippers into these pools . . . and forcing the surplus milk into Order 2 area, thus diluting the Order 2 pool and lowering the blend price there. But this is another whole story, soon to be the subject of hearings that may include discussion of a merger of Order 2 and the Delaware Valley order area. That scrap, by the way, would undoubtedly be far more bitter than the one over co-op payments.

Some observers point out that cooperatives are not computers, but organizations composed of fallible people. Therefore, cooperatives will be fallible too, and it's hardly realistic to expect them to be paragons of virtue. However, we don't refuse to pay the hired man every time he strays from the paths of sainthood . . . maybe we shouldn't cut off cooperative payments because co-ops find it impossible to be perfect. It's just plain human nature to look for the faults in everyone else because it makes us feel so good by comparison . . . unable to see "the beam in our own eye."

Proprietary Handlers

— One question raised privately by some folks concerns the fact that proprietary handlers seem unanimous in wanting co-op payments terminated . . . the Milk Dealers' Association of Metropolitan New York, Sealtest, National Dairy, and the New York State Milk Distributors, Inc. Little evidence exists that handlers are, or ever have been, overcome by emotional kindness toward dairymen . . . leading to a suspicion that handlers might like anything that would weaken cooperatives, especially operating cooperatives.

Only recently, the Michigan Milk Producers Cooperative had to call Sealtest's bluff in the Detroit area and divert milk from Sealtest plants for a time. Seems Sealtest was qualifying Wisconsin milk for use in the Detroit area so that this "foreign" milk could be used as a club in bargaining sessions! Here again, milk-handling facilities were indispensable to being really effective when the chips were down.

— It's argued that farmers need a better check on bulk tank calibration and butterfat testing . . . something that the Market Administrator could do with market service payments funds. However, any cooperative could initiate such a program under the existing Order 2 . . . as Eastern Milk Producers and the Dairymen's League have done.

Unlike some federal order markets, the states within whose borders Order 2 is operative have an existing program for check weighing and testing. Some people argue that the existing State programs could more satisfactorily be beefed up and improved than could a new program be instituted.

There seems to be a considerable difference of opinion among those who testified at hearings con-

(Continued on page 47)

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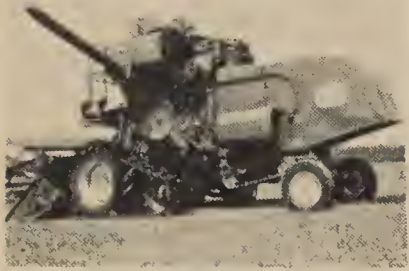
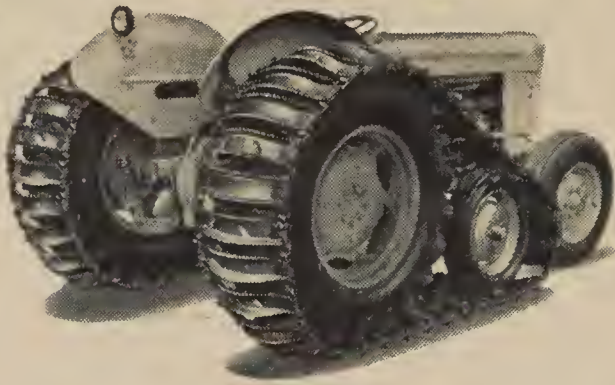
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A favorite way of sightseeing for many Nassau visitors is by horse-drawn surrey. Here, one turns on to Bay Street, major thoroughfare of the Bahama capital.

WINTER VACATIONS!

WHEN OUR Hawaiian Holiday travelers arrive home on October 30, our tour program for 1965 will have ended. But, of course, we have been looking forward to 1966 for weeks and planning exciting trips for our American Agriculturist readers and their friends.

Our first tour for next year will be a wonderful winter vacation to California and the Southwest. It will even include a visit to Tijuana to give us a real taste of "South of the Border" atmosphere. We cannot give you the exact dates or day-by-day itinerary at this time, but it will be the latter part of January, and we'll tell you all about it in our November issue.

Some of the places that will undoubtedly be included in this tour are Carlsbad Caverns, the awe-inspiring Grand Canyon, Las Vegas, Death Valley, San Diego, historic Mission Inn at Riverside, California; Disneyland and Knott's Berry Farm, Los Angeles, Hollywood, and San Francisco.

Luxury Caribbean Cruise

Then on February 22, we will sail from Port Everglades, Florida, aboard the Queen of Bermuda. This luxurious ship is completely air conditioned and has smart, spacious staterooms, each with private bath and ample closet space. Its beautifully decorated lounges, delicious meals, and expert services make it a perfect cruise ship. And since we're sailing from Florida, directly into the blue Caribbean, a smooth voyage should be assured us all the way.

Briefly, here are the places we will see:

St. Thomas, best known of the Virgin Isles, is a vacationer's dream come true. You'll find that the Danish, French, and Dutch have all influenced this resort island. Shopping here is a delight, as you can buy almost anything for less than at home.

St. Maarten. Here, you'll find a contrast of foreign flavors, since flags of both French and the Netherlands fly over this island. So far, it has escaped the excessive commercialism found on some of the other islands, and you'll enjoy

its natural loveliness . . . roads meandering through steep, grassy hills, beautiful views of the sea with other islands on the horizon, and little villages nestled in the valleys.

Trinidad's peoples are of every nationality, and because of its truly cosmopolitan air, this island is one of the most interesting spots imaginable. We will enjoy its mile upon mile of palm-fringed beaches and scenic, mountainous country.

Martinique, a French Island in the West Indies, was discovered by Columbus, possibly as early as 1493. Its capital, Fort de France, is a modern harbor city and truly a crossroads of the Caribbean.

Aruba, an island in the Netherlands Antilles, is off the coast of Venezuela. Important for its oil refineries, there is little agriculture on the island, and most of the food is brought over from the South American mainland.

Kingston is the capital city of Jamaica, the largest and one of the most beautiful of the West Indies Islands. In the mountains and along the coasts are some of the loveliest tropical resorts of the Caribbean.

Nassau. Here we'll shop on picturesque Bay Street, noted for its fine shops with bargains in crystal, woolens, silver, cashmere, and perfumes. We'll also see ancient forts, the Queen's Staircase, the native market, Government House, and go to Ardastra Gardens

Don't let these perfect winter vacations pass you by! Whether you're interested in just one tour or in both of them, we urge you to fill out the coupon on this page and mail it today. We'll send you the day-by-day itineraries and full information about costs.

Gordon Conklin, Editor
American Agriculturist
Box 370-T
Ithaca, New York

Please send me, without obligation on my part, the following tour itineraries:
Southwest Holiday _____

Caribbean Cruise _____

Name _____

Address _____

(please print)

American Agriculturist, October, 1965

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Dates to Remember

October 6 - Broiler Housing Seminar, Agricultural Substation, University of Delaware, Georgetown.

October 7-9 - Annual Meeting Rhode Island State Grange, Viking Hotel, Newport.

October 9-10 - 19th Annual Horticulture Show, Ratcliffe Hicks Arena, University of Connecticut, Storrs.

October 12-14 - NEPPCO Exposition and Convention, Farm Show Building, Harrisburg, Pennsylvania.

October 13-15 - FFA 38th Annual National Convention, Municipal Auditorium, Kansas City, Missouri.

October 18-21 - Annual Meeting Maryland State Grange, Tidewater Inn, Easton.

October 19-21 - Annual Meeting Vermont Farm Bureau, Barre.

October 22 - New York State Beef Feeder Calf Sale, Altamont Fairgrounds, New York.

October 23 - New York State Beef Feeder Calf Sale, Schallenberg Farm, Westernville, New York.

October 21-22 - Agway Stockholders Annual Meeting, Syracuse, New York.

October 21-22 - New England Holstein-Friesian Annual Meeting, Durham, New Hampshire.

October 21-23 - Annual Meeting Connecticut Grange, Bond Hotel, Hartford.

October 25-28 - New York State Grange Annual Convention, Saratoga Springs, New York.

October 26-28 - Annual Meeting, Massachusetts Grange, Sheraton Motor Inn, Springfield.

October 25-28 - Annual Meeting Pennsylvania Grange, Americus Hotel, Allentown.

October 27 - New York State Beef Feeder Calf Sale, Empire Livestock Market, Bath, New York.

October 28 - New York State Beef Feeder Calf Sale, Empire Livestock Market, Dryden, New York.

October 28-30 - Annual Meeting Maine Grange, Armory, Augusta.

October 29-30 - Golden Anniversary and Jubilee Annual Meeting, New England Milk Producers' Association, Bradford Hotel, Boston, Massachusetts.

November 2-4 - Cornell University's Nutrition Conference for Feed Manufacturers, Statler Hilton Hotel, Buffalo, New York.

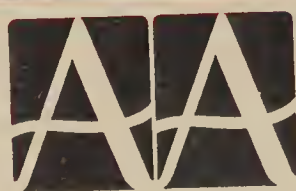
November 6 - New York State Beef Feeder Calf Sale, Empire Livestock Market, Caledonia, New York.

November 8-9 - Pennsylvania Farmers Association Annual Meeting, Yorktowne Hotel, York.

November 8-17 - National Grange 99th Annual Meeting, Topeka, Kansas.

November 9-11 - 27th Annual New York State Insecticide & Fungicide Conference, Alice Statler Auditorium, Cornell University, Ithaca, New York.

Our Christmas Gift!



American Agriculturist
and the
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FOR THE NORTHEAST FARMER

SUBSCRIPTION DEPARTMENT

10 NORTH CHERRY STREET, Poughkeepsie, N. Y.

Dear Friends:

Christmas time again gives us the opportunity to do something special for our readers.

This year we have an assortment of Christmas cards, seals and stickers of the same quality as those of last year. The cards, all in beautiful color, are all different, with appropriate Christmas sentiments and of course we supply the envelopes. Also in the gift package is a gay assortment of seals and tags - the kind children look for on their packages Christmas morning.

This Christmas package OF MORE THAN 100 PIECES is sent as a gift, postpaid, to those who send in a subscription promptly!

Each copy of American Agriculturist will be full of up-to-date farming ideas. There are crop reports, price trends and dependable machinery maintenance columns.

For the homemaker, there are easy-to-use patterns, "kitchen-tested" recipes, articles on home decoration and a monthly garden column especially written for the Northeast.

American Agriculturist and the Rural New Yorker, published since 1842, is the oldest farm paper of the Northeast, always ready to help you with your farm and home problems. Your questions will be answered with a prompt and personal letter.

You save money on the longer term subscription but you'll get the Christmas package free even if you order as little as one year! Please send in right away so that we can get the cards to you in time.

Sincerely yours,

Jim Hall

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RURAL NEW YORKER - FOUNDED 1850

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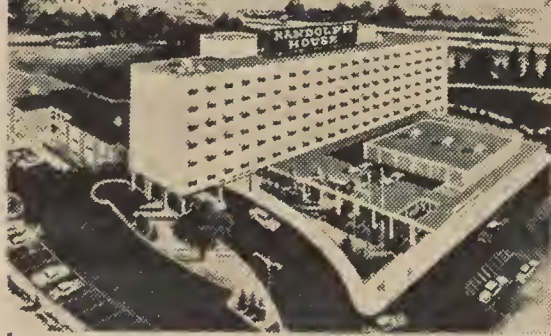


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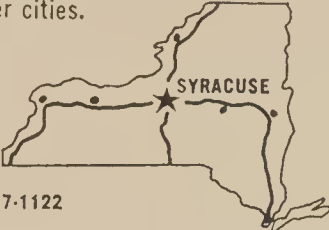
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CHRISTMAS TREE GROWING



GROWERS of Christmas trees in New York State had problems this past season; the excessively dry fall meant that trees could not be cut early or they would lose their needles. Many Scotch pine turned yellow and couldn't be sold; if they had been cut early enough, this would not have been a problem. Then a heavy ice storm hit the State early in December to hinder cutting operations. Snow, too, slowed cutting somewhat.

The New York State Department of Agriculture and Markets reported the following prices for Christmas trees. The first figure is the 1964 price; the figure in bracket is the 1963 price.

Scotch pine, cut \$1.72 (\$1.53); on stump, \$1.20 (\$1.16); red pine, cut \$1.50 (\$1.60); on stump, \$1.03 (\$1.00); white pine, cut \$1.60 (\$1.70); on stump, \$1.35 (\$1.20); Austrian pine, cut \$1.60 (\$1.30); on stump, \$1.25 (\$1.05); white spruce, cut \$1.78 (\$1.69); on stump, \$1.35 (\$1.42); Norway spruce, cut \$1.63 (\$1.43); on stump, \$1.39 (\$1.13).

Douglas fir commanded the highest price of all, \$4.13 (cut) and \$3.50 on the stump. Last year (1963) it brought \$4.55 and \$3.45. Balsam was much cheaper in 1964, dropping from \$3.65 (cut) in 1963 to \$1.50 in 1964; on stump price was about half, 90 cents against \$1.75 in 1963.

The State sold 410 Scotch pine for an average reported price of \$1.80; 150 Douglas fir at \$5.00; 1,530 white spruce at \$1.25, and 3 balsam at \$5.00 each, average price. They were sold by contract on stump by bid.

Prices Average

Remember that these prices are averages. Some trees brought more, some brought less. In the case of the State trees, all were natural trees with no pruning; the percentage of Number 1 and premium grade trees is low.

Bear this fact in mind if some buyer should tell you that the State is getting only this price; more of your trees (if pruned and sheared) will grade Number 1 or premium than any natural growth.

Pruning and shearing will bring more dividends than most work with the plantation. The district forester told me that it takes about 10 Scotch pine about 12 inches DBH to produce \$2.00 worth of pulpwood. If you had sold these trees for \$1.50 each as Christmas trees you would have pocketed \$13.00 profit. Further, you would probably have produced two Christmas trees for every tree cut for pulp in the same period of time.

In 1964 our spruce outsold all other trees by a 25-to-1 ratio. These spruce were planted in 1954 and are just coming into their own as Christmas trees. Most buyers came in and asked for balsam... at \$5.00 each on the stump... but went home with a spruce at

\$2.50. We sold a few Austrians, a few white pine, and a few Scotch.

Many readers have written me in regard to buying non-yellowing Scotch pine seedlings for their own plantation. My suggestion to them is to try a plot on their own soil at their own latitude... plant 50 trees from each of several nurseries... see which shape up the best, which grow straightest, and which do not turn yellow.

What if we were to recommend a source of seedlings and they turned yellow? Experiment on your own! You won't lose too many years' plantation time, and you will avoid the headaches and heartaches of a yellow plantation.

A general rule to follow is to try Spanish or French seed sources (or seedlings from this stock). Seedlings from the higher elevations and northern latitude of Europe tend to become yellow, while those from southern Europe (France and Spain) generally retain their green color.

Usually seedlings should run from six to twelve inches in height and have a good root system. You get no bargain in buying a larger-size seedling; the larger they come the harder they are to plant. You generally will not get as good a "take" with the larger plant because the demand for food and water will be greater due to the larger size. Once the seedling is established, this is no problem.

When you plant, consider this: Scotch pine will grow fast if planted on too rich a soil, too fast to make a Christmas tree. So plant spruce on your better soil. Scotch pines seem to thrive anywhere they are planted. Norway spruce seems to grow faster than white or blue spruce. It would pay to plant a few thousand of each variety, and thus ensure a constant supply. Once people know that you have good-quality trees, you need a good supply!

Douglas fir seems to require its own type of soil and exposure. Our experience with them has been poor, although the price would tempt one to plant them. Try a few hundred; if they do well, plant more. If they don't grow well, you aren't out much.

Balsam grows wild near here, and there are many available along the roadside for \$1.00 per tree. It grows in swampy spots in natural plantings. We have good success in growing it in the wetter spots around our plantation. Although it does grow slowly and is not as attractive to birds as the pines, local buyers will pay as much as \$5.00 each for trees... without complaint. Why do they give us \$4.00 more than they must pay for the trees elsewhere? Who knows? We just say "Thank you" and think of the seedlings we can purchase and plant with the money! — Bill Rawlings, Rome, N.Y.

American Agriculturist, October, 1965



Ed Eastman's mother getting a quilt ready for an old-time quilting bee like those described in Ed's new book, **JOURNEY TO DAY BEFORE YESTERDAY.**

Need ideas for Christmas gifts for family or friends? Why not give a copy of Ed Eastman's

JOURNEY TO DAY BEFORE YESTERDAY?

Over and over again, enthusiastic readers tell how this book of the horse and buggy days—so full of laughter, so full of tears—sets them to "rememberin' when." It will delight anyone, young or old.

How can you get a copy? Just send your check or money order for \$5.95 to American Agriculturist, Department Book, Savings Bank Building, Ithaca, N. Y. and your copy will be mailed postpaid. But do it now! Christmas will soon be here.

New York State residents add 12¢ sales tax.



ALFALFA NEEDS POTASH

by Amos Kirby
New Jersey Editor

AGRICULTURAL AGENT Dan Kensler, Burlington County, believes that if dairymen would use more potash, along with other good "housekeeping" practices, alfalfa stands would last longer and yield more. Dan bases his comments on nearly 30 years as a county agent, which started back in the days when he was an assistant and Charles Thompson was the County's Extension leader.

Supporting Dan's views, Dr. Warren R. Battle, chairman of the Department of Soils and Crops at Rutgers' College of Agriculture says, "We have recently completed a 10-year study that demonstrated the advantages to be gained from increased applications of potassium."

The University of Maryland's crop specialists, V. A. Bandel and C. B. Kresge, call potassium an anti-freeze that will winterize alfalfa. They state that potassium increases winter hardiness and disease resistance.

WINTER STOCKPILE

Checking with dairymen in both Central and South Jersey, one finds that the winter stockpile of hay is far below normal. We asked Edward T. Oleskie, Extension dairy specialist, what looks like the best buys in supplements to stretch the hay supply.

He and his assistant Frank Wright recommend wet brewers grains, citrus pulp and molasses . . . along with cull potatoes when available. With the possible exception of Sussex County, cull potatoes are available and within reasonable hauling distance for most dairymen.

NEW PEACH PACKAGE

South Jersey peach growers have cut their packing costs through the use of the do-all crate. This wire-bound box has eliminated one of the most costly packing house items.

Most growers have been using the three-quarter bushel basket, but this called for the facing of each basket. Under the use of the do-all box, there is no facing. The boxes are filled and weigh out at 38 pounds.

Mt. Pleasant Orchards, Richwood, reports that they have been able to eliminate 8-10 packers, with two-three men or women packing as many boxes as 12 people did formerly. Three people have been able to fill up to 300 boxes per hour. There is also a saving in the cost of the package itself.

In storage, the boxes may be stacked twice as high and no fruit is damaged. Wilson Hughes, Aura, reports that he has doubled the capacity of his cold storage rooms by using the box. Nearly all the growers who are catering to the *American Agriculturist*, October, 1965

big buyers have swung over to the wire-bound box as an economy move, plus all the other advantages. Buyers are now preferring the box to the basket because the fruit arrives at distant markets in much better condition.

DUST-ODORS-TAXES

New Jersey poultrymen have three major problems . . . dust, odors and taxes. Municipal ordinances demanded by residents of new developments will push some operators away from existing locations or drive them out of business. Turkey growers with open ranges, and some poultrymen with high density plants having liquid waste systems, are in trouble.

Albert and Irvin Watson, third-generation turkey growers in Camden County, are facing an ordinance that could force them to discontinue the growing of birds on open range. In this case it is largely a matter of dust that has aroused opposition of suburban dwellers.

The odor problem from high density plants has been carried to the courts in Cumberland County.

The owners have been fined, with a threat of even heavier fines should other complaints be filed.

Harry Chazanow, Vineland, manager of Atlantic Poultry Farms, Newfield, claims that he has met every requirement of both the industry and State agencies in eliminating odors. Rutgers has used the Atlantic Farms plant on various tours as an example of a modern plant.

New Jersey's new personal property tax now exerting its full impact on the industry is an added threat. Henry Firth, Gloucester County turkey grower, who normally grows 16,000 birds, is not growing one this year. The reason . . . the personal property tax that places such a burden on his operations that it wipes out his profit. Mr. Firth states that he can buy live turkeys in Pennsylvania or the Eastern Shore, dress them in his plant and supply his retail and wholesale trade.

REPLACING BASKET

Fresh market tomato growers are finally seeing the light. After many years, the 12 quart climax basket is slowly being replaced by the two-layer lug. According to John L. Womack, Swedesboro and Pedricktown market master, the lug has commanded a premium of 50-75 cents above the climax, with the same net weight of tomatoes per package.

FFA

A Future Farmer of America from New Jersey will be recommended to receive the organization's highest degree, that of American Farmer, at the 38th annual national convention of FFA in Kansas City, Missouri, October 13 to 15.

The young man is Samuel Havens, son of Mr. and Mrs. Victor S. Havens of rural Sussex. Samuel is presently a member of the Newton High School.

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Oct. 23 at Westernville, Arthur Schallenberg Farm
Oct. 27 at Bath, Empire Livestock Market
Oct. 28 at Dryden, Empire Livestock Market
Nov. 6 at Caledonia, Empire Livestock Market

Nov. 13 at Pike, Fairgrounds
All Sales 1:00 P.M.—Calves graded—
Sold in uniform lots—by Sex-Grade-Weight
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DUCKS & GEESE

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MARTINS SALES STABLES
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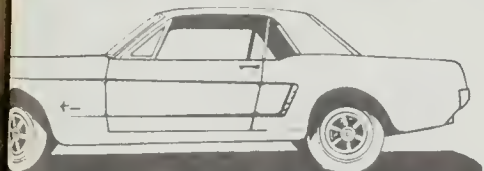
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American Agriculturist, October, 1965

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WANTED — HOUSEKEEPER BETWEEN 25 and 40 for young farmer, two school age children, live in, modern country home, farm background and drivers license helpful but not essential—permanent home for right person. Box 369-EX, Ithaca, N. Y. 14851.

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OLD HAND HEWN Barn Timbers—Oak or Chestnut—Sound Condition—Rot Free. Box 152, Wading River, L.I., N.Y.

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WANTED—PINE AND SPRUCE Cones. Large quantity needed. Burlap bags furnished. Phone 203-453-9001 or Box K. Guilford, Conn.

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WANTED—SMALL SPRAYER for small fruit farm. Write Antonio Prassia, care Corsi, Roxbury, Delaware County, New York.

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FLOWER SUPPLIES, MARBLE jewelry, Christmas materials. Catalog 25¢. Flocraft, Farrell 14, Penna.

Milk marketing

(Continued from page 39)

cerning the urgency of the need for additional checking in the New York-New Jersey milkshed.

It's likely that co-op dues would be at least as high as the market service deduction, so there wouldn't be much financial advantage in terms of amount deducted from the individual farmer one way or another. Eventually, a recommended amendment will probably be proposed by the Secretary of Agriculture . . . either modifying the present cooperative payment plan or substituting a market service payment arrangement. Producers will then vote on the amended order, risking the scrapping of the whole order

unless two-thirds vote "yes" on the amendment.

The whole affair has been one that gave everyone a chance to comment on the existing setup, get gripes off their chests, and make suggestions for changes. It would probably be a good idea to review milk marketing orders every so often anyway . . . would that it could be done a bit more simply, at less cost, and without consuming so much time!

As mentioned, the next big battle may be over merging the Order 2 and Delaware Valley orders. And standing in the wings is an even more far-reaching decision . . . the vote by producers as to the imposition of Class I quotas in their particular federal order market.

ED LEENHOUTS

Edward J. Leenhouts, Agricultural Agent for the New York Central Railroad, died September 5. Since retirement from that position, he has been active with Travel Service Bureau, and he and his wife Marian personally conducted many American Agriculturist tours. He will be missed by agricultural friends across the North-east.

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The names and addresses of the publisher, editor and managing editor are: Publisher, A. James Hall, Ithaca, N.Y.; Editor, Gordon L. Conklin, Trumansburg, N.Y.; Managing Editor, Albert Hoefer, Jr., Ithaca, N.Y.

The owner is: (if owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock.) American Agriculturist Foundation, Inc., Ithaca, N.Y.

Known bondholders, mortgagee, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities: None.

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	Average No. Copies Each Issue during Preceding 12 Months	Single Issue to Nearest Filing Date
Total No. Printed	245,172	246,602
Paid Circulation		
1. Dealers & Carriers	None	None
2. Mail Subscriptions	233,049	238,332
Total Paid Circulation	233,049	238,332
Free Distribution		
By Mail, Carrier or Other Means	5,812	7,130
Total Distribution	238,861	245,462
Office Use Left Over, Unaccounted, Spoiled After Printing	6,311	1,140
Total	245,172	246,602

I certify that the statements made by me above are correct and complete. A. James Hall, Publisher



Christmas Greetings

YOU CAN MAKE

CHRISTMAS GREETINGS you make yourself are always enjoyed more than the store-bought kind. They are cards no one else can send, and friends appreciate the thought, time and effort you've taken to wish them "Merry Christmas." Here are ideas for four different kinds of cards you can make and have all ready to mail when the Holiday Season arrives.

Card No. 1 is a good one to choose if you send 75 to 100 or more greetings. To begin with, you need a sketch of your home or some part of it. The doorway, a lighted Christmas tree in the yard

(or one showing through a window), and the fireplace decorated for Christmas are all possibilities.

You should have a simple line drawing with all unnecessary lines and details omitted. A good, clean drawing is a necessity. Go over this drawing with black India ink, and if there are errors, cover them with white poster paint; don't try to erase or scratch them out.

The original of the greeting illustrated was 9" x 12" and reproduced by the offset printing process on stiff white or tinted paper. The card was tinted by hand with box watercolors in just a few minutes. A little red on the bow and berries and yellow on the light and gold star of the mailbox pepped it up for a holiday card.

The prints were scored with a dull table knife and ruler, dividing the cards in thirds. Then they were folded, sealed with Scotch tape and Christmas seals, addressed, and mailed without envelopes.

There are other methods of reproduction such as mimeographing, hectographing, and the ditto process. Each has its own requirements, and I suggest you ask an experienced person to help decide the method best suited for your use.

Card No. 2 would be a good greeting for grandmother to give her grandchildren. It is time consuming, and you wouldn't want to make too many of them... but they would probably become keepsakes. You will need felt (a square large enough for two boots can be

Season's
Greetings



from our house
to your house

Eli and Dorothy
Thomas

1. One year our Christmas card showed our front door, complete with Holiday wreath. Another time I did our chimney, with the evergreens on each side lighted for Christmas. The hand coloring is optional, but I think it adds a lot to the card.

purchased for about 15 cents), use a name such as Sue or John fingering yarn in two or three on one turnover cuff and embroider "Noel" on the other. Or if the

by Dorothy Welty Thomas



2. This little boot could be a single layer of felt, backed with silk and used as a bookmark. Single or double, it can be mailed in an envelope.



needle, sewing thread for the sequins, and a sharp pair of shears.

Cut two layers of felt, using boot pattern on the second page of this article. Lay the two boots down with toes facing each other and put a pin in each outside layer of felt, so you won't confuse them with the inside. Embroider outside of each boot half (embroider cuff on inside and turn over) and sew on the sequins. You might

3. A card for anyone who enjoys the outdoors. Ferns can be found late, even under the snow. Look for the smallest ones, but pieces of larger ones can be used.

name is too long, use initials.

Lazy daisy stitch makes flower and leaves and plain stitches, the grass, inside of leaves, and other straight lines. Back stitch the round letters. Turn over cuff of

(Continued on page 53)



4. and 5. The larger card is for mailing and the junior size for a gift enclosure.





Photo: American Assn. of Nurserymen

In a few years, these new trees will adequately shade this home and greatly enhance its beauty.

MOVING SHADE TREES

by Nenetzin R. White

YOU MAY HAVE "money in the bank" in your hedge rows, on the edge of your woods, or some other place on your property . . . Trees! If you need shade trees and have them on your place, you can move them and save yourself anywhere from a few to several hundred dollars.

Small trees, 6 to 8 feet in height, can be moved now; large ones can be prepared now and moved by the frozen-ball method in the winter. This all involves work, as most of the cost of buying a shade tree is for labor. But if you have the time, it is healthy fun, interesting, and rewarding.

Small Shade Trees

Select the tree you want to move, one with a nice straight trunk, free of defects and with low branches. If you want a high branching tree, you can prune as extensively as you wish. It is best to dig the tree and leave a ball of earth attached, but in all probability, a native tree will have too large a root spread to make this feasible. Nursery-grown trees are pruned frequently to keep the feeder roots restricted to a small area.

Next best is to dig your tree bare root. Start as if you were going to ball it and dig a trench 2½ to 3 feet deep, about 3 feet from the trunk, and undercut the ball. Then comb out the soil from the roots and transfer at once to the prepared hole. (It's a good idea to dig this first.)

Be sure to use good topsoil with about one-third peat moss added to retain moisture. Water well and stake; thin out the side and top growth one-fourth to one-third, and continue watering until the ground freezes unless nature provides plenty of water. Use only 100 percent organic fertilizers, such as bone meal.

Large Shade Trees

It's fairly easy and almost entirely foolproof to move a good-sized tree, say one from 4-inch caliper up. Here we use the "frozen-ball" method. First, select the

tree you wish when it's in full foliage, so you can visualize what it will look like in its new location. Next, determine where you wish to plant it.

Then, sometime in late October or early November, and before frost is in the ground, cover the entire area where it is to go with peat moss, manure, sawdust, or straw to a depth of one or two feet, to keep the ground from freezing. Repeat the same operation around the tree you have selected to move. Rule of thumb for ball size is as follows: For each inch of caliper or diameter of the tree (measured 12 inches above the ground), the ball should be a foot in width. For example, a 5-inch tree would have a 5-foot ball. Depth should be roughly one-half the width of the ball.

Now all you have to do is wait until January or February, or whenever the ground is heavily frozen and the temperature in the 20 degree range. Then, remove your protection from the tree to be moved, dig a trench the proper depth and width, undercut as far as possible without having the tree topple, and let the ball stand for two or three days.

At the same time you are digging this ball, dig a ramp so that the tree can be slid or dragged out of the hole. A car, block and tackle, or tractor can then be used to move the solidly frozen ball to the new location. Since your lawn will be frozen solid, you can skid the tree easily to its new spot.

When you have it near the new location, remove the protective covering and dig the new hole; slide the tree in, and there you are! In planting it, use lots of well saturated peat moss and bone meal and lots of water.

We have never lost a tree by this method and have moved some that were 12 or 14 inches in diameter. Of course, it takes huge equipment to skid and move trees of this size. The frozen ball is moved just like a big piece of concrete—no burlap, no ropes, and no danger of the soil falling off.

To be doubly sure when moving

a tree, particularly one growing wild which has never been root pruned, it's an excellent idea to put a trench around the tree, as if you were going to move it; then backfill the trench with wet peat and bone meal, and leave it for a whole year to recover. If it dies, you've lost very little; if it lives, its survival when you do use the frozen-ball method is assured.

It goes without saying, I hope, that you will wrap the trunk as high as you can with burlap or regular rolls of professional kraft paper tree wrap to cut down water loss. Also, you should securely guy the tree to prevent wind movement until the new roots are established.

Drought Information

In October 1962, I wrote an article on shade trees and the drought. This information is even more pertinent now because of our continued dry weather. Re-read the article if you saved it. If you cannot find your copy, send a self-addressed, stamped envelope to American Agriculturist, Box 370-DI, Ithaca, New York, and they will be glad to send you a reprint of the article.

TENTH MONTH

by Ann Dimmock

The birches are like majorettes
On autumn's playing fields.
In stiff formations they advance;
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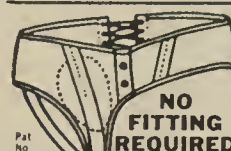
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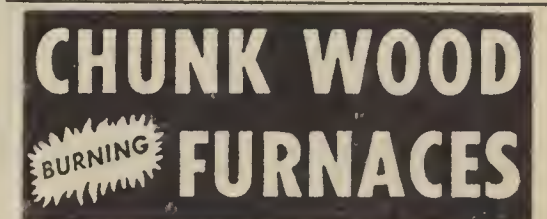
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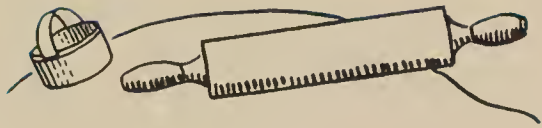
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Good Baking to You



by Alberta D. Shackelton

No. 4 - Plain Rolls

WHAT IS MORE appealing than a plate of beautifully shaped, golden brown, fragrant, tender rolls? And what greater fun for a cook than to make them? Master two roll recipes, one of plain dough to be formed into dozens of intriguing shapes and the other a versatile sweet dough (this in a future article), and your reputation as a roll artist is made!

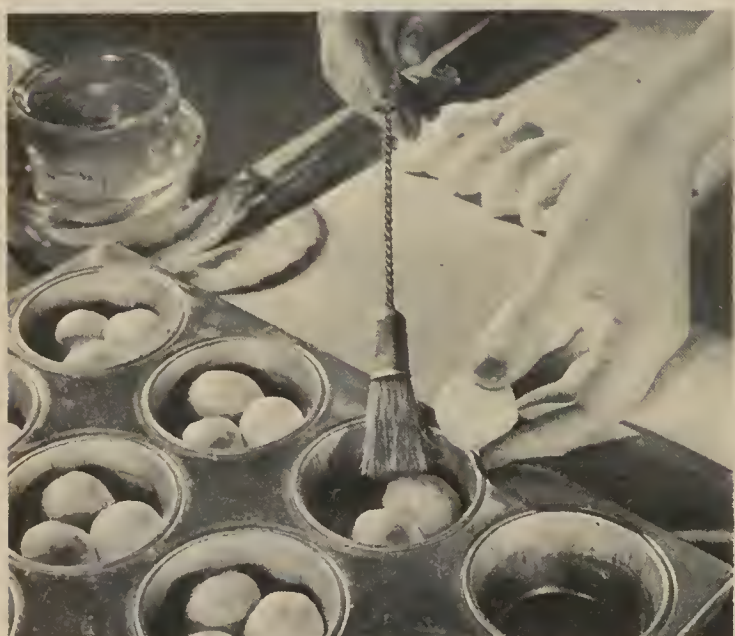
You will find a refrigerator dough handy to turn quickly into fresh-from-the-oven rolls. Such a dough has more sugar and fat than bread dough, and usually has egg added for color and a finer, more tender texture. It will keep for about 3 days when made with milk and 5 days when made with water. It may be placed in refrigerator right after mixing or after one rising and punching down.

Roll Tricks: Keep roll doughs as soft as possible and still permit handling and shaping. Use a sharp knife or kitchen scissors to cut off uniformly shaped pieces of dough; a flat ruler is handy for getting pieces about the same size.

For crusty rolls, place at least 1 inch apart on baking sheets (in muffin tins, rolls will be crusty all over). For tender crusted rolls, brush with melted butter or salad oil before or after rising, or when they come out of the oven; for crispy crust, brush with milk or beaten egg diluted with one tablespoon milk before baking or leave ungreased after baking. For a shiny brown crust, brush with one egg yolk beaten with one tablespoon water.



PARKER HOUSE ROLLS



CLOVER LEAF ROLLS

For poppy seed or sesame seed topping, brush rolls before or after rising with slightly beaten egg white and sprinkle with seeds.

POTATO REFRIGERATOR ROLLS

- 1 cup lukewarm water
- 2 packages active dry yeast
- 1/2 cup milk, scalded and cooled
- 1/2 cup sugar
- 1/2 cup soft shortening
- 1 1/2 teaspoons salt
- 2 eggs beaten
- 1 cup lukewarm mashed potatoes
- 5 1/2 to 6 cups all-purpose flour

Sprinkle yeast over lukewarm water in mixing bowl and stir until dissolved. Stir in the cooled scalded milk, sugar, shortening, salt, eggs, and mashed potatoes. Add about half the flour and beat well. Add just enough of the remaining flour, a little at a time, to make a soft dough, easy to handle. Turn onto a lightly floured board and knead until smooth and elastic.

Place dough in a well greased bowl, brush top with soft shortening, cover bowl with waxed paper or plastic film; place damp cloth over bowl and store in refrigerator until ready to use. The towel may need to be dampened and the dough punched down occasionally.

When ready to use dough (1 1/2 to 2 hours before serving time), take amount needed from bowl, shape as desired, cover, let rise until double in bulk (about 1 hour), and bake.

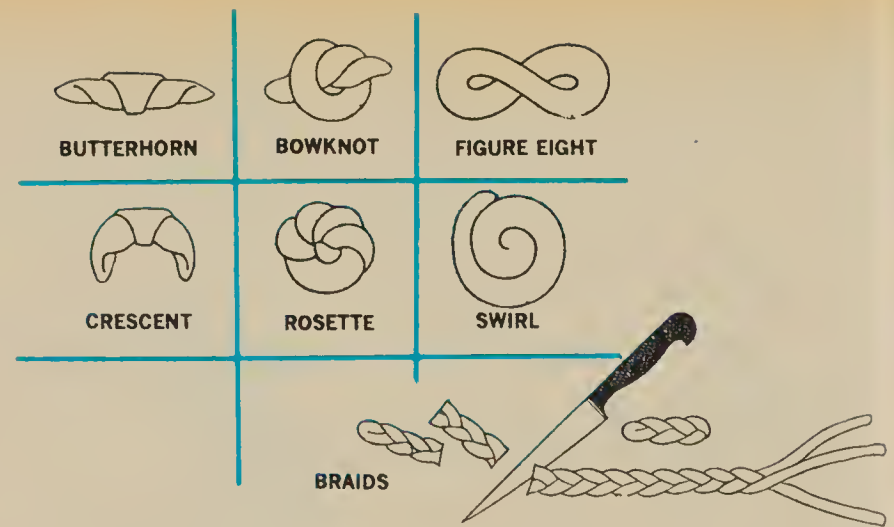
Note: Prepare 1 cup mashed potatoes as directed on package of Instant Mashed Potato Mix, omitting butter and salt called for, or use regular unseasoned mashed potatoes.

PAN ROLLS. Form half the roll dough into a roll about 12 inches long. Cut in 12 equal pieces and form each piece into a smooth ball. Place balls in greased shallow pans, about 1/4 inch apart. Cover and let rise in a warm place, free from draft, until doubled in bulk (about 3/4 hour). Brush lightly with melted butter and bake in moderate oven (375), 15 to 20 minutes.

PARKER HOUSE ROLLS. Roll out half the dough into a circle about 1/2 inch thick. Cut into rounds with a 2 1/2-inch cookie cutter. Crease heavily through center with dull edge of a knife. Brush lightly with melted butter and fold over in pocketbook shape. Place about 1 inch apart on greased baking sheet.



FAN TANS



Cover and let rise until doubled in bulk (3/4 to 1 hour) and bake in hot oven (425), about 20 minutes.

CLOVER LEAF ROLLS. Form half of dough into a roll about 9 inches long. Cut with a sharp knife into 9 equal pieces; form each piece into 3 small balls. Place 3 balls in each section of greased muffin tin, brushing each ball with melted butter before placing in tin. Cover and let rise until doubled in bulk (3/4 to 1 hour). Bake in hot oven (425), about 15 minutes.

NOTE: You may cut with doughnut cutter, using centers for clover leaf rolls and circles to form twists or figure eights.

FAN TANS. Roll out half of dough into an oblong about 17 x 10 1/2 x 1/8 inches. Brush generously with melted butter and cut with a sharp knife crosswise into strips 1 1/2 inches wide. Pile 7 strips together. Cut crosswise into pieces 1 1/2 inches wide. Place cut side up in greased muffin tins. Cover and let rise until doubled in bulk. Bake in a quick oven (400), about 20 minutes.

CRESCENTS. Roll out one-third of the dough into a circle 9 or 10 inches in diameter and about 1/4 inch thick. Cut with a sharp knife into 8 pie-shaped pieces and brush lightly with melted butter. Roll up, beginning at wide end and seal ends firmly. Place on greased baking sheets about 2 inches apart and curve into half circles. Cover and let rise until doubled in bulk (3/4 to 1 hour) and bake in hot oven (425), about 20 minutes. To make **BUTTERHORNS**, do not curve rolled dough into crescents.

Miscellaneous Shapes

For any of the following, place the shaped rolls 2 inches apart on greased baking sheets. Cover and let rise until doubled in bulk. Bake in a hot oven (425), about 12 to 15 minutes.

BOW KNOTS. Roll a ball of dough under palms of hands into a strip 1/2 inch thick. Cut into pieces 6 inches long. Tie a simple loose knot in center of each.

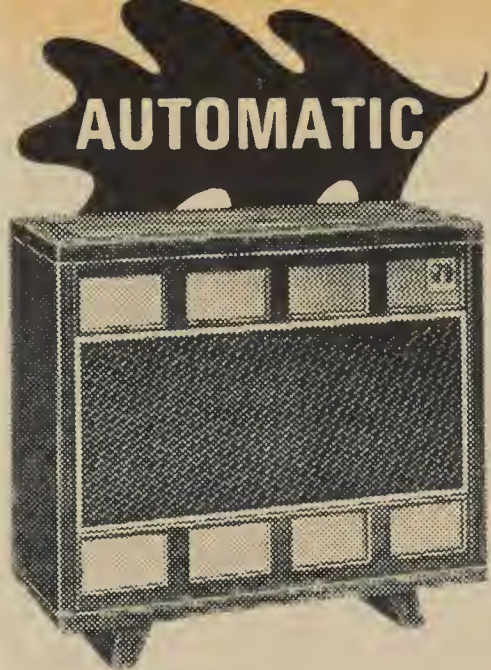
ROSETTES. Roll dough as for bowknots, but cut into 8-inch strips. Tie loose knot in strip's center, then bring end of roll from underside and tuck into center at the top. Now bring the other end from the top down and around to center of roll, where the two ends will meet and be tucked downward.

FIGURE EIGHTS. Roll dough as for bowknots and rosettes and cut into 8-inch pieces. Shape each piece into figure eight, pinching the two ends together underneath, to keep from popping open while baking.

BRAIDS. Roll balls of dough into strips 1/2 inch thick. Fasten three strips together at the top with a pinch, then braid. Cut braid into 3-inch lengths and press cut ends of each together.

SWIRLS. Prepare dough as for braids. For a single swirl, wind the dough pinwheel-style to desired size. For a double swirl, stretch dough and form into an "S" in reverse.

Photos: J. Walter Thompson



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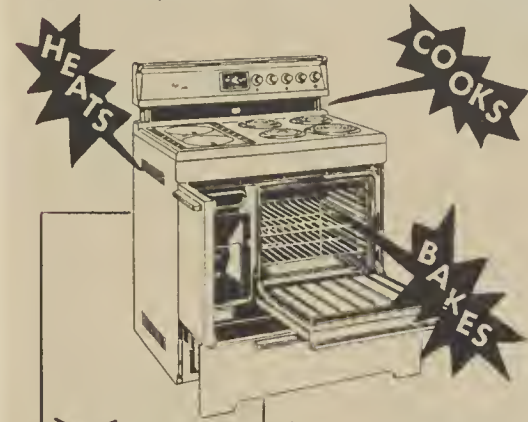
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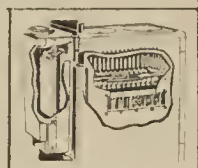
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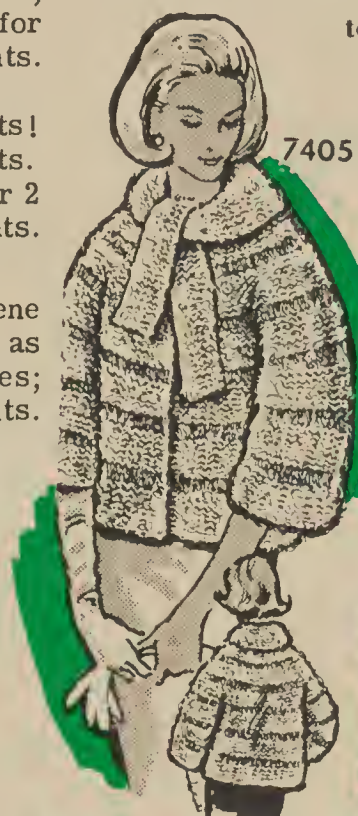
7405. A glamorous jacket knitted of mohair. Made all in one piece, except for collar. Directions for 32-34; 36-38. 25 cents.

852. Face-flattering, cozy hats! Smart with sports, dressy outfits. Make of mohair. Directions for 2 hats; fits all sizes. 25 cents.

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to delight everyone!



new twist!



NUTTY NO-TWIST CRULLERS

1 cup milk 1/2 cup sugar 1 teaspoon salt
1/2 cup (1 stick) Fleischmann's Margarine
1/4 cup warm water (105°-115° F.)
1 package Fleischmann's Active Dry Yeast
3 eggs, beaten
5 1/2 cups unsifted flour (about)
Planters Peanut Oil
Confectioners' Sugar Glaze (below)
1 cup chopped Planters Dry Roasted Peanuts

Scald milk; stir in sugar, salt, margarine. Cool to lukewarm. Measure warm water into large warm bowl. Sprinkle in Fleischmann's Yeast; stir until dissolved. Add lukewarm milk mixture, eggs, 3 cups flour. Beat until smooth. Stir in enough additional flour to form soft dough.

Turn out onto lightly floured board and knead until smooth and elastic, about 8-10 minutes. Place in greased bowl, turning to grease top. Cover; let rise in warm draft-free place until doubled, about 1 hour.

Punch dough down. Turn out onto lightly floured board and divide in half. Roll half of dough into a rectangle, 14x6-inches. Cut into 14 one-inch strips. Cut these in half, making 28 strips 3 by 1-inches. Place strips on greased baking sheets. Repeat with remaining half of dough. Cover; let rise in warm draft-free place until doubled, about 1 hour.

Fry in deep, hot (375° F.) Planters Oil until golden brown, about 2 minutes on each side. Dip in Confectioners' Sugar Glaze (below); sprinkle with chopped Planters Dry Roasted Peanuts. Makes 56.

Confectioners' Sugar Glaze: Combine 6 cups sifted confectioners' sugar, 3/4 cup milk and 1 1/2 teaspoons vanilla.

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PLEASE NOTE: We have a very limited supply of some of the books listed—in some cases only one or two volumes. Orders will be filled in the order received and checks returned on any we cannot fill.

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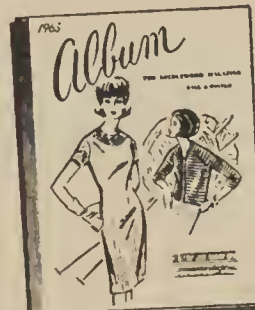
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8265
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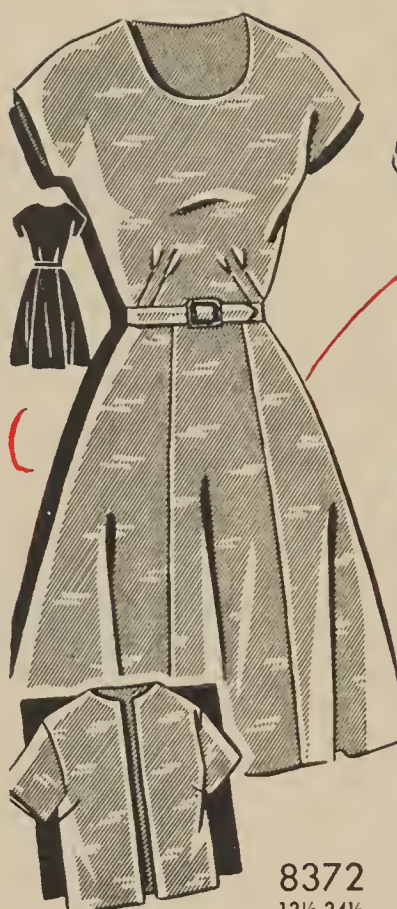
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SMALL
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12 1/2-24 1/2



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DRESS PATTERNS are 35c each. NEEDLEWORK PATTERNS are 25c each. Add 10c per pattern for 1st-class mailing. Send orders, with coin, to: AMERICAN AGRICULTURIST, Pattern Dept., Box 220, Radio City Station, New York, N.Y. 10019. Write name, address, zip code, pattern number and size clearly.

Send 50c more for the latest issue of our pattern magazine Basic FASHION. Every pattern features our exclusive Photo-Guide. Also, our Needlework ALBUM is filled with a wealth of handwork designs. Send 50c for your copy.

Greetings

(Continued from page 48)

each side of boot and pin the two halves together. Go across the lower edge of the cuffs with over-casting stitches and then overcast the two halves together. Leave top open so you can tuck in a stick of chewing gum, a dollar bill, or anything flat you may want to give. A tiny loop made with yarn or a paper clip could be used to fasten boot to the Christmas tree.

The third card is made with a pressed fern and a bit of drawing paper. First, you cut or tear a sheet of 9" x 12" white drawing or construction paper into quarters. Paint all over it with clear water, then float in streaks of two or three colors. Use blue with green and red with yellow or blue. You may want to experiment a little with the colors first, as some combinations will get muddy when blended. Dry and press.

Then arrange fern and star cut from construction paper on the watercolor background. You may add tiny flowers such as hydrangea florets which have been pressed. And colored balls may be cut from construction paper and arranged on the fern as if it were a Christmas tree.

Put the whole thing on a small piece of waxed paper, cover with a single layer of facial tissue (separate 2-ply tissue), and paint gently with a solution of one part

Elmer's Glue-all and two parts water. Cover all with waxed paper and smooth gently with the fingers to work out air pockets. Put between several layers of newspaper and press with a weight. You can make several at a time and stack them.

Let cards dry at least a week without disturbing them. Then remove carefully from the waxed paper, trim and mount on construction paper folders, leaving a narrow margin of color all around. Write your message inside with white ink.

Cards No. 4 and 5 are for the woman who is deft with a pair of shears. Use the patterns printed here or make some of your own, such as a star or bell. Fold pattern down the center and also fold some printed calico or chintz exactly in center of the design. Lay fold on fold and cut carefully around the pattern.

Paste on construction paper folders with stiff library paste. If paste is too thin, it will soak the cloth and cause folders to buckle. Letter with ink or colored pencil. Fine-patterned wallpaper could be used instead of cloth.

Why not decide right now, while there's still plenty of time, to make at least one of these cards for Christmas this year. Think how surprised and pleased your friends and relatives will be! And make it a family project... the children will love to gather ferns or help cut out the designs from pretty cloth and wallpaper.

CHERRY PIE CHAMPIONS

Our list of Pomona winners in the American Agriculturist-New York State Grange Cherry Pie Contest is now complete. Following are the Pomona baking champions not yet reported:

POMONA WINNERS

COUNTY	GRANGE	WINNER
Chenango	Greene	Mrs. Anna Hoag
Clinton	West Chazy	Miss Beverly Slosson
Columbia	Lindenwald	Mrs. Pauline Schaltegger
Cortland	McGraw	Mrs. Sharley DeLong
Essex	Ausable Valley	Miss Margaret Baggs
Franklin	Adirondack	Mrs. Nellie Clark
Fulton	Crum Creek	Mrs. Laura Claus
Herkimer	North Star	Mrs. Bertha Flansburg
Lewis	Kirschnerville	Mrs. Mary Bockenheim
Monroe	Ogden	Mrs. Carolyn Streb
Montgomery	Florida	Mrs. Burdett Fick
Onondaga	Borodino	Mrs. James Dye
Ontario	Canandaigua	Mrs. Clinton Ardell
Orange	Montgomery	Mrs. Theodore Benedict
Orleans	Gaines	Mrs. Mary Shuler
Otsego	Schenevus Valley	Mrs. Susie Dubben
Rensselaer	Taconic Valley	Mrs. Orin Meddaugh
Saratoga	Corinth	Mrs. Mildred Moshier
Schenectady	Glenville	Mrs. Edwina Bellamy
Seneca	Ovid	Mrs. Charles Vargason
Steuben	Merchantville	Mrs. Evalena Ball
St. Lawrence	Hammond	Mrs. Mary Dunham
Suffolk	Sound Avenue	Mrs. Hattie Aldrich
Wyoming	Castile	Mrs. Elsie Cronk



MRS. B. FICK
Montgomery County



MRS. C. ARDELE
Ontario County



MRS. M. DUNHAM
St. Lawrence County



MRS. E. CRONK
Wyoming County

When State Grange meets at Saratoga Spring later this month, the 53 county winners will compete for valuable prizes awarded by the following companies: Agway, Inc.; Corning Glass Works; Dairymen's League Coop. Assn. Inc.; Monarch Range Company; and Oneida Ltd., as well as for cash prizes.

Watch for the story of the finals with pictures of the top winners and their prizes in our December issue.

NEEDLEWORK BOOK

See all the new fashions to knit and crochet in our 1966 Needlecraft Catalog. Complete fashion section plus accessories, toys, gifts, afghans, bazaar sellers, and THREE FREE PATTERNS printed right in the Catalog.

Send 25 cents to AMERICAN AGRICULTURIST, 257, Needlework Service, Box 162, Old Chelsea Station, New York, N. Y.



Charlotte Amalie on St. Thomas, capital of the U.S. Virgin Islands.

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Jamaican bananas to market.

Leave Fort Lauderdale, Fla. - February 22, 1966
St. Thomas - Friday - February 25
St. Maarten - Saturday - February 26
Trinidad - Monday - February 28
Martinique - Tuesday - March 1
Aruba - Thursday - March 3
Kingston - Saturday - March 5
Nassau - Monday - March 7
Arrive Fort Lauderdale - March 8, 1966



Sugar cane harvest in Martinique.



Fishing village in Martinique.

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ED EASTMAN'S PAGE



When this Northeast country was young and blanketed by the great virgin forests, nearly all the streams were wider, deeper, and flowed much more slowly than they do now. There were few flash floods, erosion was much slower in a forest country, and droughts were few in number and short in length. The trees, both by their shade and their roots, held the water in the soil.

Then came man with his axe and his saw and the forests began to disappear. Many a settler fighting to clear his land straightened his aching back and cursed the trees.

One of the most dramatic sights in our early history was the burning of the huge log piles. The pioneer worked all winter cutting down the big trees. Then the neighbors came with their ox teams, hauled the great logs together and rolled them into piles sometimes twenty-five feet or more high. When the logs were drier, the neighbors came again on an early spring evening for the burning. Those huge log fires lighted up the sky and could be seen for miles around. It would have made a modern lumberman or forester sick at heart to see that beautiful lumber go up in smoke.

No longer ago than when I was a boy there was a beautiful maple grove on nearly every farm in the valley where I lived. Today there are only one or two left. Also when I was young there were at least a few trees for lumber on most farms. Now try to find any!

So the great forests retreated before the advancing hosts of our so-called civilization.

But it seems to be the way of life that man conquers one problem only to find several new ones in its place. We traded the trees for erosion, flash floods, and droughts.

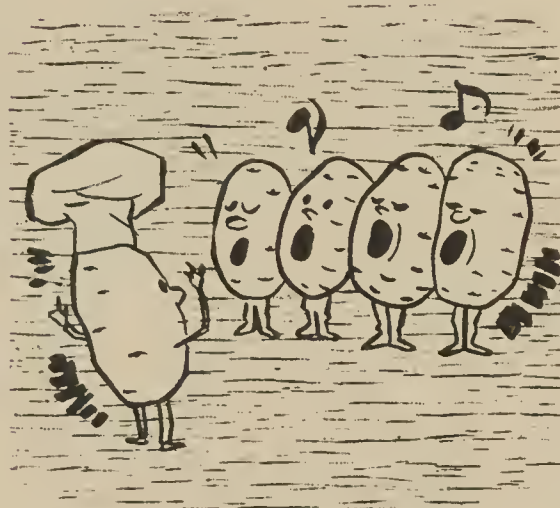
In the last two years the Northeast and much of the rest of the country have had one of the worst droughts in history. Wells and springs that never failed before have gone dry. And few farmers can remember a summer as dry as this one. City authorities are worrying about their water supply, and scientists tell us that the water table in the soil is lowered to the danger point.

Some old-timers claim that our climate is changing. Scientists will not agree with this, except that the

IS CLIMATE CHANGING?

lack of trees is one chief cause of prolonged dry weather.

One remedy, then, is plain. We must preserve the trees that we have and plant more. Within reason, no tree should be destroyed without planting one or more in its place, and the cutting off of trees in our great woodland parks and on our water sheds should never be permitted except under strictest regulation. No matter where they are trees are public property, and in a sense they belong to all of us.



THE LOWLY SPUD

Recently I wrote an article for publication in the Ithaca Journal in which I gave some of the interesting history of the potato. Also, I emphasized the fact that the potato is one of our most nutritious and valuable foods, and that it is too bad that consumption has fallen off so drastically in recent years.

When I was a boy we had potatoes three times a day... for breakfast, dinner and supper... boiled, baked or "warmed up"; but now most families eat potatoes not even once a day, if at all.

I emphasized the fact that potatoes are not particularly fattening, and that it is the gravy and foods eaten with them that produce the most fat.

Stated also in my article was the fact that high-quality potatoes are grown in the Northeast, and that the consumer does not have to buy western potatoes in order to get quality.

Letters and telephone calls from consumers disagreed with my statement about the quality of eastern potatoes.

Who is right? Are our potatoes poorer in quality than western potatoes, or is it because western

producers can afford to ship only top grades?

Does modern high production of potatoes, yields like 500 bushels per acre, affect quality? Does killing the vines before the potatoes stop growing affect the quality?

Maybe all the lowly spud needs is more enthusiastic support by the producers and their friends—more advertising and publicity.

I will be glad to have letters with ideas on the subject for my information, but please don't expect answers to your letters because I am not now set up to answer a heavy mail.

THE STORY OF A BOOK

Mrs. Mary Ford, DeRuyter, New York, writes: "The way I received a copy of your book, 'Journey to Day Before Yesterday,' was very unusual. Gertrude Tappan sent her copy to Ida Maltbee; she sent it to Catherine Lawton; I borrowed the book from her, and while I had it six people read it. I sent it on to Bessie Bishop, and she sent it back to Gertrude Tappan.

"Now I am ordering two copies, one for myself and one in memory of my husband which will be placed in the memorial section of the Laceyville, Pennsylvania library. I am living in camp now, but when I return to my permanent home in New Port Richey, Florida, a copy of your book will be placed as a gift from our club in the new library in that State.

"Of all the reading that my husband has done, never have I seen him enjoy anything more than your book. I knew of one man who sat up all night to finish it."

I think writing this book has brought me more happiness than almost anything else I have done, because the many letters from readers prove that the book brought them so much happiness. Letter after letter tells how "Journey to Day Before Yesterday" helped the readers to forget for a while the problems of the present and relive their youth when life was young and gay.

To get a copy postpaid, send check or money order for \$5.95 to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York.

THEY KNOW THEIR FRIENDS

When I was a teenager I used to work by the day and month for neighboring farmers. One of them was naturally a kindly man, but he had a violent temper which kept me half scared of him most of the time.

One time I was helping this man with the milking when a nervous two-year old heifer put her foot squarely in his milk pail... then completed the job by kicking him over.

When he got up, he grabbed his milking stool and gave the cow a beating that made me so scared and sick that I have remembered it vividly ever since. I am sure that cow was never worth much after that.

Now, every dairyman knows that some cows can be the most cantankerous, irritating, and frustrating beasts on the face of the earth, and surely it takes a man with an even temper always to keep good-natured around some of them. What can make a man madder than to get swatted across the mouth or eyes by a cow's tail which she has dragged in the drop? What is more frustrating than to try to drive a cow through a stable door when she has other ideas?



But the fact remains that if a man doesn't like cows, with all their faults, he should not be in the dairy business. When walking in a pasture with a farmer, I can soon tell whether or not his cows like and trust him.

I have seen the late Ed Babcock, one of the best cow men I have known, walk up and put his hands on any animal in a strange herd. They know their friends!

The Agway Cooperator reports a recent experiment at the University of Vermont. By placing small radio transmitters internally in cows, the scientists were able to determine how their heartbeats reacted to people around them. The heartbeat of one young cow was much faster, and her production dropped, when she was fed and milked by a man in whom she had no confidence.

When the man was replaced by one whom the heifer liked, her heartbeat returned to normal, she did not hold her milk, and her production increased.

EASTMAN'S CHESTNUT

This is a true story right out of life in the horse-and-buggy days—the kind I like best.

Uncle George was an old bachelor who ran a cider mill every fall. Although he was gruff, he really was kind at heart, and never refused anyone a drink of cider. The result was that the kids flocked around in such numbers that they got to be a real nuisance.

One night after school when the youngsters came for a drink of sweet cider, when the boys were not looking George grabbed up a bunch of beets and threw them (the beets, I mean, not the boys) into the cider press with the apples. When the cider came out it was blood red. Apparently in a rage, George jumped up and down and shouted: "Them cursed rats again. They've got into my press!"

The boys took one horrified look and went away from there fast.

American Agriculturist, October, 1965



NUMBER 1 RACKET

We have printed many items about "referral selling" whereby a customer is influenced to buy something, usually at a highly-inflated price, on the agent's promise that he will receive credit on the purchase price if he induces friends or neighbors to buy also. In most cases, the purchaser never gets the promised credit.

New York State Attorney General, Louis J. Lefkowitz, has noted that referral sales frauds rank as the number one racket in the State. He says that a new state law, which became effective September 1, will help reduce some of the frauds. The new law requires that all such agreements to compensate a buyer of the product must be reduced to writing in a single document which would incorporate the details of the reimbursement, as well as the details of any installment payment plan connected with the purchase, otherwise such agreements are void. The law would also give the buyer the right to deduct any "commissions" earned for referrals from the total purchase price.

CAUTION

The United Lightning Protection Association, Inc. has sent us a warning that there is a company called "United Lightning Protection Company," Maryville, Missouri, which issues labels on lightning rod installations, and which customers are likely to confuse with United Lightning Protection Association membership.

ULPA is a technical and educational trade association comprised of retail installers of lightning rod systems. It does not manufacture or install lightning rods, and it does not have a nameplate to be affixed to buildings equipped with lightning rods.

United Lightning Protection Company has no connection with United Lightning Protection Association, Inc.

PITFALLS

The following letter is a good example of some of the pitfalls to watch for when you are considering any home improvements.

"One evening, just after dinner, a man called on us and talked about aluminum siding. He asked if he could bring the vice-president of the company later that evening, and we agreed to it. We had been thinking of putting aluminum siding on but had not got around to getting estimates.

"The men came and, while the 'vice-president' showed us samples, the other one measured the house. Jerry, the 'vice-president,' told us how we could bring our cost down by getting other customers. We would get \$100.00 for each one they sold. (We later told them about one possible home, but the people told us they never showed up there, and that was almost three months ago.) Jerry also promised us he would come out right after the job was completed and if there was anything we were not satisfied with we should tell him, nobody else.

"No rain gutters were put on the garage and they weren't pitched right on the house. Nothing was cleaned up around the yard, and a lot of damage was done to plants, bushes, a fruit tree, and to the shingles on the garage. Finally, two fellows came and cleaned up; and after I wrote several letters two other men came to fix the rain gutters. However, no one has come to do anything about the damage.

"Shortly after the job was completed, we received a monthly installment book from a credit company. Now that's where we have to make the payments. The salesmen had given us a price of \$2940.00. We asked if that included everything and they assured us it did, but the time balance of the contract is \$4586, payable in 78 installments of \$58.80 each. We didn't know a thing about the credit service charge of \$1646.00. We tried to reach Jerry at the two numbers he had given us, but there was never an answer.

"To anyone interested in a siding job, I would say:

Be sure that everything that is promised is written in the contract;

Check not only the price of the job, but also the credit charges;

"Watch for damages while the work is being done;

And do not sign any completion papers until the job is finished just as it is supposed to be!"

APRONS TO SEW

"In the spring, I wrote to several companies that advertised sewing to do at home to earn a few extra dollars. After considering the replies, I sent \$2.00 to Jiffy Company, Lake Village, Arkansas, for an application and a sample apron to sew.

"Sometime later, I received their answer, requesting \$5 more for the service, which I was to get back when I began earning. For me \$5 is hard to come by, so I didn't get it sent until May 25, and about 5 weeks later I received my cancelled check. Then, I received another apron and a request for the names and addresses of merchants who might sell my sewing.

"I sent them one store name, and my letter came back marked "Out of Business." I have written twice more, but my letters are returned. Is there anything I can do to get my money back?"

Unfortunately, no. There is nothing anyone can do when a company has gone out of business.

This is one of the main reasons we have never recommended any homework company. When things get "hot" the business is likely to close up; perhaps moving on to a new location under a new name.

Actually, we have little faith in a company that offers work at home, but asks for money first thing. They are more interested in getting money for themselves than for someone else, and the disheartening thing is that most people who answer these ads can ill afford to lose money.

THANKS

Many requests which we print under "Can You Help?" bring answers in such overwhelming numbers that it is impossible at times for an individual to answer them all personally. We wish we had space for all of the "thank you" notes we receive from those who have requested and received help from our readers and who have asked us to print their letters of appreciation.

In Force Two Months

Policies started October 14

Accident happened December 12

\$1930.00 Benefits Paid Under

Policy Series 505 NYB

Loss of Leg\$ 750.00

Hospital 180.00

Policy Series ME26A

Medical expenses\$1,000.00



Agent Frank Muller of Bath, N.Y. delivers check to Mr. & Mrs. Rudolph Cruser and their ten year old son Wiley of Cohocton, N.Y. Wiley was driving tractor hauling a load of manure to the field. It was a flat field close to the barn. The unexpected happened—his boot lace caught in the P.T.O. which yanked his right leg into the shaft. The badly mangled leg was amputated below the knee.

OTHER BENEFITS PAID

Most of these people carry several North American policies, combined they give larger benefits.

Edwin H. Hall, Bolivar, N.Y.	\$ 140.58	Sidney J. Watts, Medina, N.Y.	\$ 197.16
Stepped on by cow—injured ankle		Hit by valve—cut scalp—concussion	
Norman Green, Binghamton, N.Y.	558.65	John Sherman, Hannibal, N.Y.	270.57
Fell into cement wall—fractured skull, concussion		Buzz saw hit him—broke thumb, cut tendon	
R. L. Rhoades, Conewango Valley, N.Y.	909.38	Harold Hoose, Oneonta, N.Y.	572.50
Hit by log—broke collarbone		Auto acc.—cut of face, injured knee	
William Ketchum, Genoa, N.Y.	460.77	Ernest Streeter, Gouverneur, N.Y.	1,103.26
Control lever of tractor hit hand—severe injury		Chain gave way on logs & hit him—fract. leg	
William Newton, Sinclairville, N.Y.	822.68	Glenn Rourke, Madrid, N.Y.	218.56
Playing football—badly broken leg		Auto acc.—broke collarbone	
James J. Gallo, Lowman, N.Y.	176.00	Mertie Rourke, Madrid, N.Y.	411.42
Pushed by cow—broke tooth, injured back		Auto acc.—broke pelvis, cut & bruises	
Helene Reif, Smyrna, N.Y.	1,315.00	Lynette M. Hilmeyer, Sprakers, N.Y.	235.05
Tree fell on her—broke collarbone, ribs, crushed chest		Slipped on wet grass—injured back	
Marshall Seymour, Greene, N.Y.	729.24	Harris Jenkins, Alpine, N.Y.	168.56
Fell from step ladder—injured neck		Stepped on by calf—injured foot	
Lila M. Roberts, Saranac, N.Y.	640.73	Richard W. Hill, Interlaken, N.Y.	1,430.00
Fell—injured back		Hit by truck on road—fract. thigh bone	
Maranda B. MacIntire, Cortland, N.Y.	1,415.00	Hilda Wisor, Owego, N.Y.	671.66
Slipped & fell—broke hip		Butted by calf—severe fractured wrist	
Nicholas P. Bremiller, E. Concord, N.Y.	1,000.00	Raymond Stevens, Brooktondale, N.Y.	651.15
Shirt caught in P.T.O.—cut scalp, broke leg		Hit by wood panel—injured knee	
Herman L. Mosher, Stratford, N.Y.	225.00	Sam Tessler, Kerhonkson, N.Y.	1,750.00
Hit by log—injured back		Auto acc.—inj. back, head, chest, ribs, leg	
George Morrison, LeRoy, N.Y.	1,215.40	Ralph Thomas, Greenwich, N.Y.	1,080.80
Fell from truck—injured eye		Fell—severe fracture of ankle	
Terrence Wissick, Herkimer, N.Y.	634.10	Dominick Sanzotta, Red Creek, N.Y.	623.50
Hand went through door—severe cuts to hand		Pickup truck acc.—injured shoulder	
Charles Herrick, Evans Mills, N.Y.	607.55	Richard Stauss, Bliss, N.Y.	330.00
Gored by bull—severely injured hand		Kicked by cow—fractured arm	
Kenneth Bush, Lowville, N.Y.	1,880.00	Charles B. Cady, Jr., Dundee, N.Y.	341.80
Auto acc.—severe internal injuries		Caught hand in conveyor belt—amputated finger	
Bernice Johnson, Geneseo, N.Y.	243.99	Perl A. Gilborn, Centerville, Pa.	440.00
Fell—fractured wrist		Tractor tipped on ins.—broke hip, inj. lung	
Edway G. Messinger, Canastota, N.Y.	385.00	Julius Rosengrant, Lake Ariel, Pa.	303.57
Attacked by bull—broke ribs, ankle, inj. shoulder		Auto acc.—cut lip, inj. hip	
Ronald Ophardt, Brockport, N.Y.	227.42	Ronald F. Leonard, Gillett, Pa.	319.28
Bowling—fractured bone in hand		Thrown from tractor—inj. back, hip, rib	
Robert L. Johnson, Amsterdam, N.Y.	792.96	Willis Deane, Bernardston, Mass.	189.30
Fell pushing wheelbarrow—injured knee		Auto acc.—broke nose, cut arm	
Kay Kinney, Vernon, N.Y.	115.71	Milton Powles, Milo, Maine	241.42
Truck acc.—cut & bruised lip, knee, ribs		Knocked down by bull—broke leg	
Samuel Pitcher, Warner, N.Y.	1,867.84	Emily C. Adams, Charleston, N.H.	508.00
Auto acc.—severe compound fract. arm		Slipped & fell—injured back	
Mary V. Phelen, Fabius, N.Y.	482.00	Sherman E. Orvis, Bristol, Vt.	745.65
Fell on floor—fractured arm		Fell from roof—severe fractured leg	
Avery Metsinger, Holcomb, N.Y.	1,109.42	Arthur J. Pepin, Newport, Vt.	154.64
Tractor accident—fract. vertebrae, ribs		Fell while skiing—broke leg	
Albin Karsten, Middletown, N.Y.	321.40	Emily W. Shivers, Bordentown, N.J.	1,000.00
Riding on draw bar—stick hit leg, fract. leg		Tripped over rug—broke thigh bone	
		Edward Wain, Trenton, N.J.	811.76
		Fell from manger, hit knee—severe leg injury	

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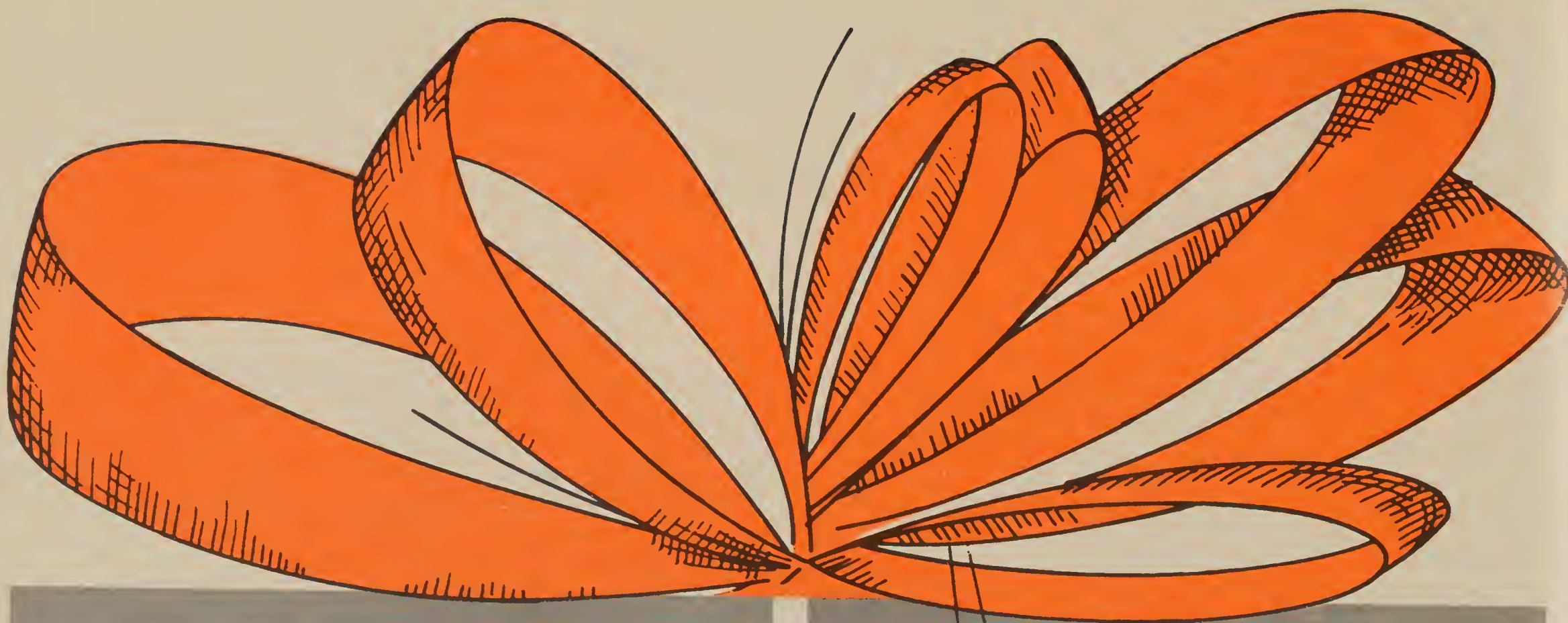
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American **A**griculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER

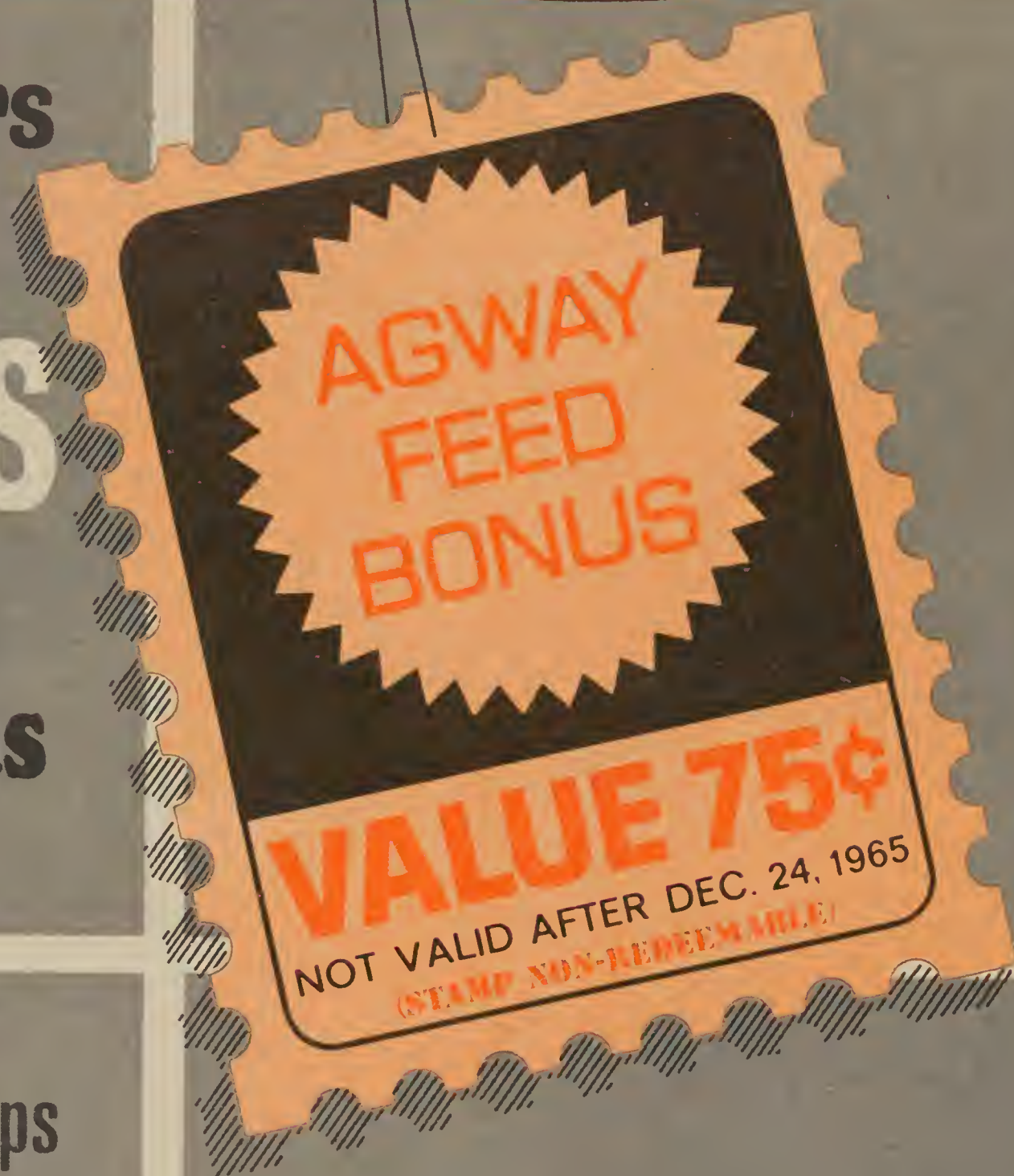




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Volume 162, No. 11

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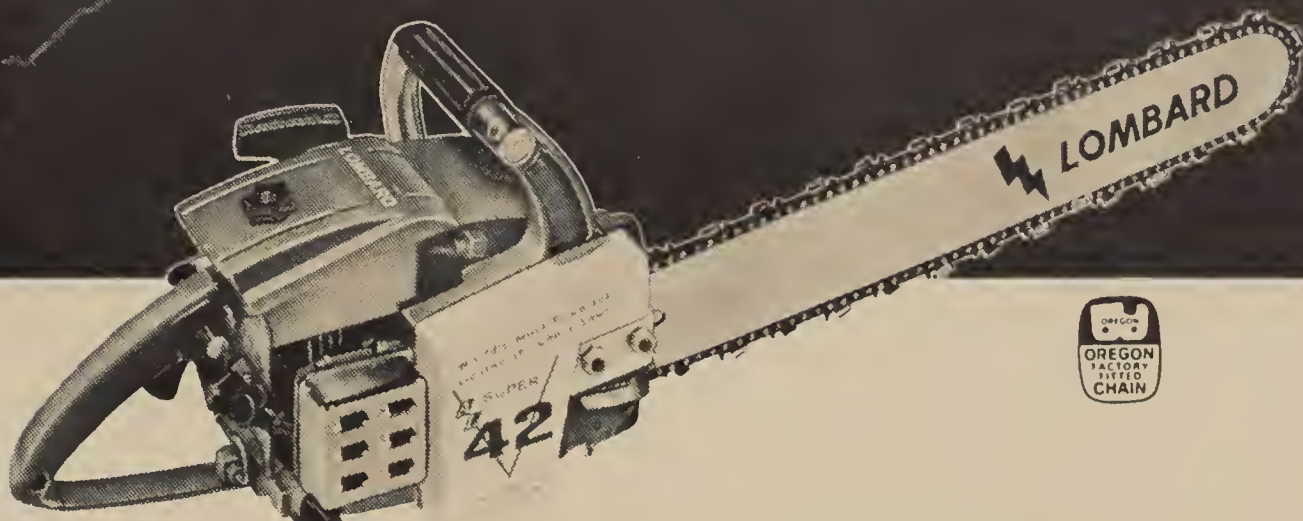
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EDITORIALS

by GORDON CONKLIN

NEW DIRECTION

A profound change in farm policy is being promoted behind the scenes in Washington. Briefly, it involves taking off the brakes on U.S. farmers and encouraging more production . . . food to be bought in massive quantity by Uncle Sam (you and me) for shipment to underdeveloped countries overseas.

There are endless statistics that outline the dimensions of the fantastic population explosion underway around the globe. Let's just boil them down and say that lower mortality rates, teamed with the fact that the boy-girl attraction is apparently here to stay, have skyrocketed human population. And, say the experts, we haven't seen anything yet! The spectre of that gloomy fellow Malthus, who predicted that population will always outrun food supply, has returned to haunt us.

Now there are two basic arguments in favor of firing up our food production boiler to full blast. One is the Christian ethic that demands that the "haves" share with the "have nots." The other is that the "have nots" have a nasty habit of ganging up and trying to clobber the wealthier nations . . . in the mistaken belief that taking geography is all that's necessary for material abundance.

Oh yes, there's also the point that food production is the free world's strongest suit. Russia and friends have to face the fact sooner or later that U.S. capitalism has met the acid test and created a land of milk and honey. . . . while Communist countries tightened their belts. Spreading our abundant food across the world would rub Red noses in this fact so unpleasant to them, and remind wavering populations that they should think twice before embracing a system that has proved to be so notoriously inefficient.

Proponents of this new approach point out that we've been trying for 30 years to create artificial scarcity of food and fiber in this country . . . with a notable lack of success. In fact, U.S. farmers are sure to break a flock of production records in 1965 . . . in spite of Freeman and Company.

Why not, they argue, phase out the price support programs entirely? Take the money formerly used for farm subsidies and surplus storage, and use it to buy food to distribute overseas. And add to this sum a sizable chunk of the present foreign aid appropriation, plus some more for good measure. Added advantage: no need for the vast (and expensive) ASCS bureaucracy now measuring, enforcing, and keeping records across the land.

This huge increase in demand for farm products might well solve the farm problem that has been agitating legislators for decades . . . at least do more for farm incomes than Congress has been able to accomplish. The watchword would be "Produce," rather than "Reduce" . . . a welcome breath of fresh air to farm families.

No thoughtful observer believes that the problems of a hungry world can be solved indefinitely by food from the United States. Long-range solutions can come only by underdeveloped nations becoming developed . . . able to feed themselves, or with industrial output sufficient to purchase food.

After all, when you clear away all the rigamarole, the people of one nation trade what they have produced to the people of another nation for items produced there . . . in essence,

bartering. The "have not" nations just don't produce enough to eat, or to exchange for sufficient food from some other country . . . and it's going to be a mighty long time before some of them ever do become really productive.

If we embark on any such plan to feed the world . . . or some of it, anyway . . . we surely must attach certain strings to our largess. After all, our own children are "underdeveloped" in terms of being able to contribute fruitfully to society, so we insist on certain things in return for privileges extended to them. This isn't so we can use them, but so they'll be encouraged . . . sometimes even forced . . . along the difficult path of the training and self-discipline so essential to being productive. Finally, they outgrow us and "want to do it themselves" . . . which is what we wanted all along.

These strings on our food shouldn't include the insistence that the recipients love us (we'd hope they wouldn't throw rocks at us, though), but we should insist that nations attempt some programs pointing toward greater self-sufficiency. Education and population control would be my nominations for the two most urgent programs.

How about it, do you think this country should take on the job of providing more of the world's food?

UNION DUES

Did you notice that the Amalgamated Clothing Workers of America, AFL-CIO, has made the largest single purchase on record (\$15.5 million) of loans insured by the Farmer's Home Administration? This labor union has a total investment of \$74.3 million in the program . . . built up since the first participation in 1962. FHA makes the loans, then sells them to private lenders . . . but FHA continues to guarantee them.

Farmers traditionally squawk about any kind of organization dues that exceed a ten-dollar bill, or contributions from sales of products anywhere above a fraction of a percent. Take notice, though, that a labor union has empty-ump millions to invest in loans made by FHA!

Could it be that farmers would get more done if they kicked in to their organizations as much in proportion as do labor union members?

REQUIEM

The other day I parked on a hilltop to marvel at the beauty of a valley guarded by the rolling hills that merged with a sky of flawless blue. Beside the road was a house long deserted, standing in unpainted bleakness amidst tall weeds and outreaching brush.

A lilac bush whispered gently in the breeze, telling of a woman with toil-worn hands who once smelled its fragrance and dreamed of the exotic perfumes she would never know. A quartet of trees stair-stepped in height murmured of the time when they were planted to commemorate the birth of new additions to the family.

A pitcher pump held its rust-frozen handle high in salute to a sweating man who once drank deeply at its welcome oasis amidst the heat and dust of harvest time. I could almost hear the rollicking laughter of children as

they played hide and seek along the hedgerow to the west.

Here a farm family had once dreamed and known despair, loved and hated, hoped and feared . . . and now were gone. How, I wondered, could we the living draw greater understanding and deeper compassion from the lives of those who no longer cast a shadow in the sun. Granted the gifts of communication and insight, what would this creaking house and these whispering trees tell me about living nobly and loving deeply? What would they relate about sacrifice and effort that would shame my excuses and complaints into silence? Would their nominations for things really important make my own list seem shallow and self-centered?

Still wondering, I drove toward the valley, and visits with those whose hands now hold the torch of human existence.

BIG BUSINESS!

We have been doing some research at AARNY concerning the scope of agriculture in the Northeast (New England, New York, New Jersey and northern Pennsylvania). What we discovered proved the conviction we had all along, that the Northeast has a pretty healthy farming business.

For instance, the area mentioned has a gross farm income of just a little more than 2 billion dollars from its 30 million acres in farms. The region has 14 percent of the bulk milk tanks in the nation, 12 percent of the milking machines and chain saws, and 11 percent of the field choppers. In 1964, farmers in the Northeast bought 8,765 tractors and slightly over 2 million tons of commercial dairy feed.

Looking at it from many angles, the Northeast has a whale of a lot of farming!

FARM AND CITY

One of the most dangerous tendencies that troubles the human race is that of erecting walls of misunderstanding. Every newspaper tells of the tragic consequences of bitterness between nations, racial hatred, animosity among neighbors, strife between labor and management. Human nature being what it is, there are natural fracture planes along which those walls of misunderstanding seem to grow as spontaneously as an icicle in January.

And, unfortunately, all too many of us form our judgments of individuals or groups on the basis of the headlines . . . even though it is the departure from the typical that makes headlines. The majority of Negroes are not looters; some movie stars do stay married after the honeymoon is over; most farmers receive little or no direct government subsidy.

Farm-City Week is officially November 19-25, but the job to be done is a year-round one. City people and farmers have a lot in common . . . and depend on each other. Modern farming is impossible without the machines and power whose creation is handled by urban people; the industrial cities would wither without the food production and industrial market potential of farming.

Why get all hot and bothered about the development of better understanding between farm and city people? Why shouldn't each group mind its own business and let the other one do the same? Because the hopes and needs of both groups are so intertwined. Together, they can create overflowing abundance . . . divided, they both fall into that dismal trap of discord which history has proved to be so painful and so fruitless for everyone.

Sure, there should be good healthy arguments. After all, viewpoints will differ. But if all of us do our bit, we can promote a climate of understanding so that city man and farmer will be able to grasp the other's point of view.

American Agriculturist, November, 1965

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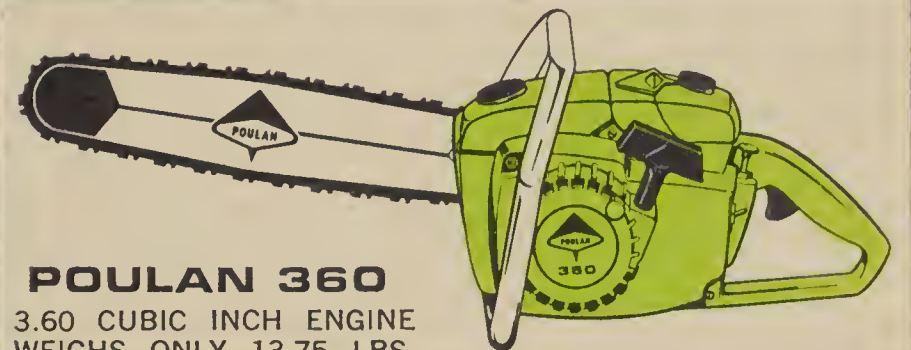
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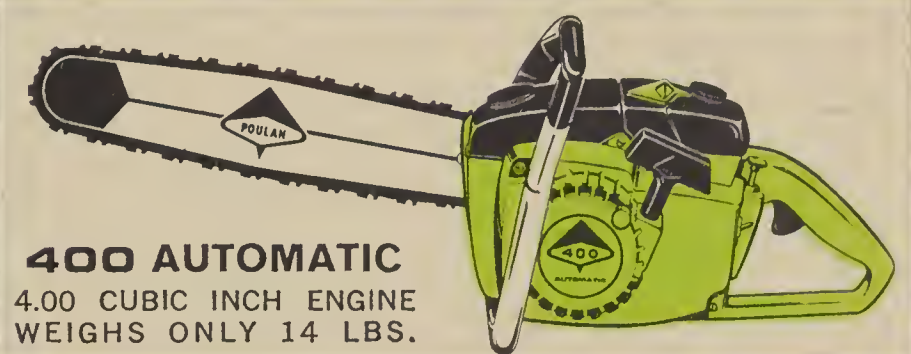
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Leicester—A. R. Christiano Hdwe.
Linwood—Lawrence Hill
Little Valley—Wm. Kuhneck Chain Saws
Liverpool—Knapp's Lawn Mower Svc.
Livingston Manor—Liberty Tractor Co.
Lowville—Lee Lumber Co., Inc.
Massena—H. J. Premo Sales & Svc.

Mayville—Art's Lawnmower Shop
Molra—Eseltine's Massey-Ferguson
Monsey—Monsey Hgts. Lawnmower, Inc.
Monsey—Monsey Tractor, Inc.
Monticello—Magie's Saw Shop
Montrose—David M. Elder
Morrisonville—Monto Lumber Co.
Mt. Kisco—House's Service Station
Mt. Vernon—Dale Rankin Co., Inc.
Narrowsburg—Robert's Mower & Chain Saw
Newark—Ike's Repair Shop
New Bremen—Meszaros Farm Supplies
Newburgh—Sherwood Lawnmower Svc.
N. Collins—Norcol Enterprises
Northville—Stephen Wadsworth
Norwich—Kosowsky Hardware
Nichols—J. D. Robertson
Old Forge—Hubert R. Lee
Oneida—Oneida Hardware
Otto—Reed-Tegler, Inc.
Pachogue—Pachogue Power Tool Co.
Peekskill—Caola Bros.
Pine Bush—McDole's Service Sta.
Pine Plains—Merritt & Woodward
Pleasantville—C. V. Pierce Co.
Portville—Harold W. Holcomb
Pottersville—Griffin Bros.
Pulaski—Hollis Welding Shop
Riverhead, L. I.—G. A. Luce Hardware
Rochester—Howard's Lawn Mower & Chain Saws
Rome—Ernest Portner Lbr. Co.
Salem—Bud Clarks
Saugerties—Percy Mower
Schenectady—J. H. Dimmick & Harold Waters
Schenectady—Thurway Engine Clinic
Schoharie—Graves Logging Supply
Selkirk—Zupan's Lumber Co.
Sherburne—Sherburne Farm Supply
Sodus—Earl De Badts
S. Glens Falls—Route 9 Motor Svc.
S. Otsego—Truman Duncan Store
Spencer—Simcoe's Garage
Springfield Center—Jackson Noyes
Spring Valley—P & D Lawn Mowers
Stamford—So. Jefferson Chain Saw Svc.

Ticonderoga—Johnson General Store
Tupper Lake—Maurice "Doc" Conners
Unadilla—Groves Trailer Sales
Valatie—Campbell's Service Center
Walworth—Duell's Garden Store
Washingtonville—Safada & Jaeger
W. Henrietta—James R. Hanna
W. Leyden—Stanley Freeman
Westport—Vaughn & Huntley
White Lake—Jimmy's Garage
White Plains—Handy Rent All
Whitney Pt.—G. W. White Lawn & Garden Sply.
Williamstown—Earl Skinner
Windham—Don Crandell
Woodhull—Roy Calkins Store

NEW JERSEY

Berlin—Lawn & Garden Equipment
Bloomsbury—S. S. Pickel
Cape May Courthouse—Elmer's Motor Svc.
Clifton—Pleasant Garage
Fair Lawn—Rooney Elec. Mtr. Repair
Freehold—Barg & Morford
Gladstone—Ellis Tiger Co.
Ho-Ho-Kus—Ho-Ho-Kus Svc. & Equip.
Kenvil—Kenvil Power
Lakewood—Lakewood Hdwe. & Supply
Lambertville—Pinnacle Tree Service
Madison—Montagnas Grinding Shop
Maplewood—Gauthier Door Check
Morganville—Dick's Lawn Mower Svc.
Newfield—Hi-way Garage
Newitt—Bussie's Landing
N. Haledon—Boro Mower & Grinding
N. Plainfield—Frank DeLuccia, Inc.
Oakhurst—Grasslands Co.
Pennsauken—Quaker Tool Rental
Pennsauken—Wharton Hdwe. & Supplies
Red Bank—Red Bank Mower Svc.
Salem—Clinton W. Plummer
Stanhope—Pcterson's Chain Saw Svc.
Summit—Glen Jay's Mower & Garden
Toms River—Eagle & Son Inc.

TRACTOR POWER TAKE-OFF

by Wes Thomas

INDEPENDENT CONTROL of tractor power-take-off shafts provides most of the advantages of a separate engine on a baler, combine, or field chopper, without the necessity of buying an engine with each machine and then using it for only a few weeks each year. If you wish to obtain maximum usefulness and keep repair costs as low as possible, here are some items that you should know about pto's:

Industry-wide standards have been set up for pto hook-ups. Thus, you can hitch one manufacturer's implement to a tractor made by another manufacturer. If your tractor has a non-standard size pto, a conversion attachment is available from your dealer.

Two Standards

However, at the present time there are two standards in use. The older, long-established standard speed is 540 rpm (revolutions per minute). The more recently established standard has a speed of 1000 rpm. During the extended changeover period while existing tractors and implements are still in service the two standards will continue; eventually, it is expected that the 1000 rpm speed will be the one standard.

The 540 rpm pto shaft on the tractor is 1-3/8 inches in diameter, has six straight splines, and turns at 530 to 550 rpm, in a clockwise direction when viewed from the rear of the tractor.

The 1000 rpm pto shaft is also 1-3/8 inches in diameter, but it has 21 involute (great tooth-shaped) splines. Speed range is 975 to 1025 rpm. It also turns in a clockwise direction when viewed from the rear.

For best results, set your adjustable drawbar with the 540 rpm pto as follows: Hitch point 12 to 15 inches above ground level and in line, side-to-side, with the pto shaft; hitch point 6 to 15 inches below and 14 inches to the rear of the pto shaft. These settings will provide the least stress on the universal joints of the pto shaft when you go over uneven ground or around corners.

For best results with the 1000 rpm pto, set the drawbar as follows: Hitch point 13 to 17 inches above ground level, and in line, side-to-side, with the pto shaft; hitch point 6 to 12 inches below and 16 inches to rear of the pto shaft.

If your tractor has a built-in tachometer, the correct engine speed for best pto operation will be marked on the dial. If your tractor doesn't have the tachometer, have your dealer check the pto speed, and then mark the throttle setting that gives about 575 rpm with no load on the pto for the 540 rpm pto, and 1050 rpm for the 1000 rpm pto. The extra speed allows for a slight slowing down under load.

Most pull-type machines have a pto drive that consists of a short and a longer shaft, three universal joints, a telescoping section, a slip clutch, safety shields, an adjustable support for the front end of the longer shaft, and a coupler to attach the shaft to the tractor pto shaft.

Generally, the universal joints show first signs of wear if you do not use the proper hook-up between tractor and implement. The telescoping section allows the shaft to change length when you go around a corner or over uneven ground.

On some machines the telescoping portion of the shaft can be taken apart readily. If you have yours apart for any reason (such

as making machinery repairs) be sure to reassemble it so that the halves of the universal joint yokes on each end of the shaft are in line. If one joint is a quarter turn out of line the rotating parts of the machine do not turn at a uniform speed.

The slip clutch should be adjusted so that it "breaks" or opens when the machine "slugs" or becomes overloaded, but it should not slip excessively under slight overloads, or it soon wears out. Avoid getting oil or grease on the faces of the slip clutch when you lubricate the machine.

Safety shields are provided by the manufacturer solely for the protection of the operator. Even though they are sometimes an annoyance when greasing, hitching or unhitching, they should not be left off the machine.

Since the tractor pto shaft can be from 6 to 15 inches above the drawbar, the front support for the longer shaft on the drawn machine is adjustable for height, so that you can get the three universal

joints in line. This helps reduce the load on the universal joints.

The coupler is prevented from pulling off the tractor pto shaft by either a latch or a pin. Be sure that this fastening is properly secured, otherwise it may come off before the telescoping action of the shaft occurs.

Coupling

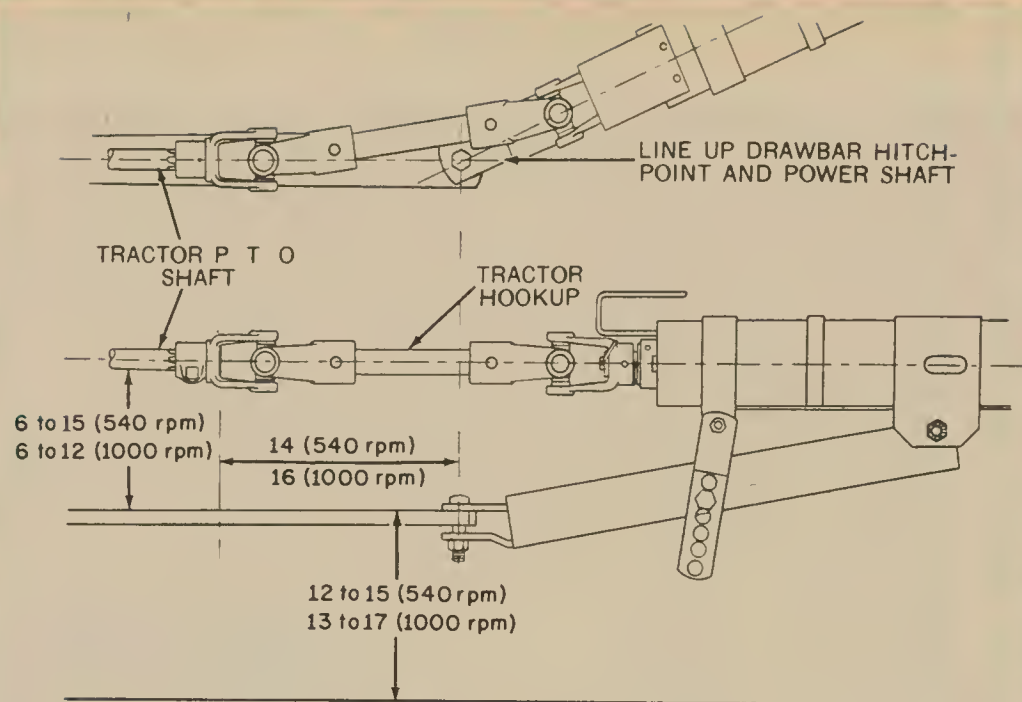
If the pto shaft on your tractor is rusty and dirty from not having been used for some time, you may have difficulty sliding the implement coupler over it. A few minutes spent in wire brushing and oiling the tractor shaft splines makes the job less difficult.

You can easily position grease fittings in moving parts of your combine, baler or chopper by the following method: Instead of attempting to stop the pto at just the right time by means of the clutch, do this: Engage the pto clutch, be sure that the tractor ignition switch is "off," then turn the pto slowly with the tractor starter. The pto clutch should be engaged gradually the same as the forward-motion clutch. An early breakdown of some of the tractor or machine parts results from the practice of snapping a pto clutch into engagement.

If the drawn machine becomes clogged by a "slug" of material the slip clutch should "open." However, after stopping the machine, do not attempt to start it again with the pto clutch before cleaning out the machine. You may be able to force the "slug" on through... but you will soon have a burned-out pto clutch if you continue the practice.

If your tractor has a pto clutch controlled by a separate lever or pedal that is not hooked up in sequence with the forward-motion clutch, you can use it to an advantage when turning sharply at the end of the field. Allow the machine to empty, and then disengage the pto clutch. You can prevent undue wear on the universal joints and turn more sharply. Be sure that the machine is again up to speed before placing a load on it. You can do all this without disengaging the forward-motion clutch if your tractor has complete-

(Continued on page 17)



Recommended dimensions for hook-up of 1000 rpm and 540 rpm power-take-off shafts.

TYPES OF PTO CONTROL

All the major tractor manufacturers provide some sort of a "live" pto arrangement. That is, the forward motion of the tractor can be stopped without stopping the rotation of the pto. However, there are differences in the method by which this is done!

Independent — Forward-motion clutch and pto clutch are entirely separate. Either can be started or stopped independently of the other. This is considered to be the most convenient type of control, and is the only type which is practical for use in disengaging pto for turning at row ends.

Continuous Running — The master clutch disengages both pto and transmission. An auxiliary clutch stops or starts forward motion of tractor. Whenever the master clutch is disengaged, the pto stops. Thus, the pto can be

stopped without stopping forward motion of tractor.

Two-Stage Clutch — Both forward-motion and pto rotation are controlled by same clutch pedal. Depressing clutch approximately halfway stops forward motion only. Depressing the clutch completely stops both forward motion and pto rotation. The pto rotation cannot be stopped without stopping forward motion.

Ground-Drive PTO — The speed of the pto shaft is controlled by the forward speed of the tractor regardless of the transmission gear being used. This arrangement is advantageous with certain machines (such as side-delivery rakes) where it is desirable to have the operating speed of the machine in direct relation to its forward speed. This type pto is not "live." The pto stops whenever the forward motion of the tractor stops.

How much does it cost you to feed your calves milk?

How much extra money could you make if you sold *all* of your milk?

Figure it up. Then see your Purina dealer and let him tell you how much you can save by feeding new Purina Nursing Chow.

Just 25 pounds of Nursing Chow replaces 225 pounds of milk. And now Purina Nursing Chow is available in a 50 pound economy size—perfect if you feed several calves at one time.

New improved Purina Nursing Chow is an easy-mixing milk product high in energy, fortified with vitamins and minerals plus a powerful antibiotic to guard against scours. And it stays in suspension—won't settle out.

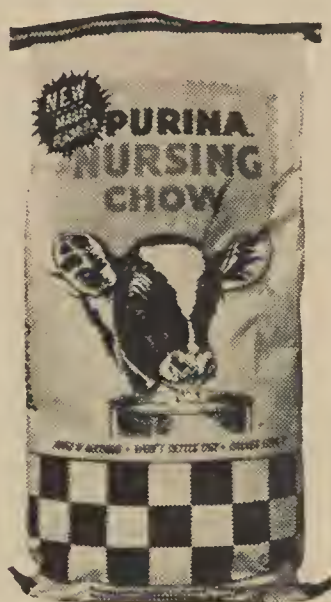
Purina research records show Nursing Chow grows calves up to 6 pounds heavier at 28 days than those fed other milk re-

placer products. This is because of an improved energy-protein balance formulated after intense testing at the Purina Calf Research Unit.

New Purina Calf Startena—a companion product to Nursing Chow—with its improved energy-protein balance is highly palatable and helps calves gain fast. In fact, Holstein calves fed this dry ration according to the Purina program have averaged 320 pounds at 4

months of age. That's 48 pounds heavier than the national average!

Decide now to sell *all* your milk this fall. Raise calves on new Purina Nursing Chow and new Purina Calf Startena—the team that's research-tested for fast, economical gains. Your Purina dealer will be glad to outline Purina's calf program for you. See him today!



RALSTON PURINA COMPANY • CHECKERBOARD SQUARE • ST. LOUIS, MISSOURI



**PURINA
CHOWS**



DAIRY FACTS

by Dr. J. P. Everett

Manager, Purina Dairy Research

A recent University of Kentucky study disproves the old tale that a calf must be taught to eat a dry calf starter.

In the university's trial, calves which had no coaching performed just as well as calves which had dry starter placed in their mouths twice daily.

We have noted similar results in experiments with Calf Startena at our Gray Summit, Mo., Research Farm. We've found that you don't have to teach calves to eat calf starter if you:

1. Feed a high-quality palatable ration (Purina's is).
2. Offer it in small amounts initially to insure fresh feed, feeding what's left over to older heifers.
3. Decrease the amount of milk replacer fed in the fourth and fifth weeks, before milk replacer feeding is terminated.

Limit Period of Feeding Milk Replacer

Surprisingly, surveys show that many dairymen feed milk replacer until calves are six to eight weeks old. Although calves undoubtedly enjoy this, it's not the most economical way to feed them. Based on our studies, we recommend feeding Purina Nursing Chow for only four weeks to calves that weighed over 80 pounds at birth and five weeks to calves that weighed under 80 pounds at birth.

Holstein heifers at Purina's Research Farm average 320 pounds at four months—48 pounds above the national average. This shows that extended milk replacer feeding is not necessary.

Early Breeding of Heifers

It is encouraging to see more national interest in properly feeding heifers to get them into the milking string earlier. A recent study by North Carolina State workers shows that a dairyman can lose about \$7.25 per heifer per month for every month she is not milking after 24 months of age.

Purina's latest experiment in this area includes a group of Holsteins which were bred at first heat. Although we do not recommend this practice, the results look interesting. One heifer in this group just finished a 14,774 pound record in her first lactation. When this experiment is completed we'll tell you more.

FRUIT



Grape Harvester — A third mechanical grape harvester, based on the design developed by Cornell University researchers, is now being built.

Also developed is a double-curtain trellis system of growing the grapes. The fruit is grown on two wire supports (which look like outdoor clothes lines) and both sides can be picked simultaneously.

As the machine moves along the rows, a vibrating, freely-rotating spiked wheel shakes the cordon-bearing wire and the grapes rain down onto a catching conveyor. Leaves and other debris are blasted away by air. The machine can clean up an acre of grapes per hour, whether the crop is heavy or light.

Rayon Straps — The introduction of rayon straps to support fruit

trees is changing apple growing. The straps can be applied by one man and last at least three years; and they are not affected by windstorms.

Soft and pliable, the straps cannot abrade the bark or cut into the tree. Any necessary adjustments of tension are easily handled by the buckle that is used to close the loop.

Cherry Harvester — Instead of picking cherries one by one, the harvester shakes the whole tree. The shaker, mounted on a three-wheel carrier, grasps one of the limbs with a clamp at the end, and administers a brief but vigorous shake. As the fruit rains down, it lands on a trampoline-like catching frame fitted around the tree, and bounces down the sloping canvas to a conveyor belt. Iced water tanks at the end of the conveyor take in the cherries.

A four-man crew can do the job of about 35 hand pickers, whether the crop is heavy or light.

The rate of picking is 3 minutes per tree.

Bee Population — Professor E. J. Dyce, New York State College of Agriculture, reports that there are about 12,000 persons in New York State having honeybees. The annual production averages 10,000,000 pounds of honey, and 175,000 pounds of beeswax. The State, with 175,000 colonies, usually ranks among the first six in the country in number of colonies and in production.

Once-a-Month — "Honey Market News," will now appear only once a month. The report summarizes current data on conditions such as weather, colony conditions, honey flow, conditions of flowering plants, demand for honey, and market prices.

Beekeepers, packers, and others interested may have their names added to the mailing list for "Honey Market News" on request to the Market News Branch, Fruit and Vegetable Division, Consumer and Marketing Service, U. S. De-

partment of Agriculture, Washington, D. C. 20250.

"Tight-Fill" Packing — Three agricultural engineers from the University of California, Davis, have devised a new method of packing plums, peaches, and nectarines. The fruit is graded to size, placed at random into a container, settled by vibration, and top padded with the container closed tightly enough to exert light pressure on the fruit inside. A limited number of the automatic vibration settling machines will be in operation this year.

Blackberry Harvester — The University of Arkansas has developed a mechanical harvester for blackberries. At a recent display where the berries were sliced, mechanically-harvested berries were more uniform for the several quality factors than hand-picked ones. More detailed information can be obtained by writing to Dean, College of Agriculture, University of Arkansas, Fayetteville, Arkansas.

VEGETABLES



Electronic Greenhouse — The first greenhouse operation to be analyzed by electronic computer technique is believed to be that owned by Boyd A. Mertz of Northumberland, Pennsylvania. Although excellent records were available, Mr. Mertz felt they contained more information about his vegetable operation than he was able to interpret. With the help of R. J. Becker, Extension specialist, an activity analysis of the greenhouse operation was made to de-

termine the dollar and cents consequences of various activities and alternative practices.

In Pennsylvania, information about this computer analysis service may be obtained through local county agents.

Good Weed Control — Professor R. F. Sandsted of the Vegetable Crops Department at Cornell, reports that both growers and vegetable agents are pleased with the initial results from the use of trifluralin in beans, tomatoes and cabbage, except where mustard and ragweed were a problem.

Morsodren Approved — A product of the Morton Chemical Company, Morsodren has received approval by the U. S. Department of Agri-

culture for use as a potato seed-piece treatment. The fungicide is a reddish-colored liquid that readily mixes with water to form a clear solution. Seed potato pieces are either sprayed or dipped into the diluted Morsodren before planting.

Aerial Application — For the first time, crop producers can call on aerial applicators to spray an undiluted pesticide in low volume to control the adult corn rootworm, fly, mosquito and blueberry maggot. Malathion LV Concentrate, the only pesticide registered for undiluted use in ultra low-volume spraying, is now accepted for commercial use.

Permitted intervals between last application and harvest will vary between crops, but one of this pesticide's major advantages is low

toxicity to man and animals. It is approved for use on hay and grass crops on the day of harvest or grazing.

New Handbook — Interested in roadside marketing? Send for a copy of "Farm Roadside Marketing," published by Food Business Institute, University of Delaware, Newark 19711. The price is \$2.00 per copy.

The handbook is the result of intensive research, and offers how-to-do-it recommendations on site selection, building construction, layout, signs, lighting, refrigeration, and a hundred-and-one other topics concerned with roadside marketing. It is written primarily for farmers selling fruits, vegetables and other commodities at their own roadside establishments.

LIVESTOCK



Effective Combination — In field trials conducted by the Agricultural Division of Chas. Pfizer & Co., neo-terramycin (a combination of neomycin and terramycin) proved effective against vibrio, pathogenic strains of E. coli, and salmonella. The new product is being marketed both in premix form for use in feeds and as a soluble powder concentrate for use in drinking water.

Wool Standards — Effective January 1, 1966, there will be new standards for grades of wool. At present there are 12 grades, ranging from "80's" (finest grade) to "36s" (coarsest grade). The new rules will add four more grades . . . "finer than grade 80s," "62s," "54s," and "coarser than grade 36s."

Copies of the new standards may be obtained from the Denver Wool Laboratory, Consumer and Marketing Service, U. S. Department of Agriculture, Building 81, Denver Federal Center, Denver, Colorado 80225. Also available through the Denver Wool Laboratory are official samples for grades of wool and wool top.

Higher Urea Levels — Recently, research at Iowa, Illinois, Louisiana, Michigan, Minnesota and Purdue has shown that 50 to 100 percent of the supplementary protein can be furnished from urea in fattening rations for cattle. However, even with supplements where 90 percent of the protein equivalent is from urea, only one-third of the total protein in the ration is supplied from nonprotein nitrogen.

Purdue research with beef cattle indicates that dehydrated alfalfa meal contains unidentified factors which stimulate bacterial synthesis of protein from urea. The Purdue "64" Supplement is composed of

28.0 percent cane molasses, 36.0 percent dehydrated alfalfa meal, 22.1 percent urea, 10.4 percent dicalcium phosphate, 3.5 percent trace mineralized salt, and 20,000 I.U. of vitamin A per pound.

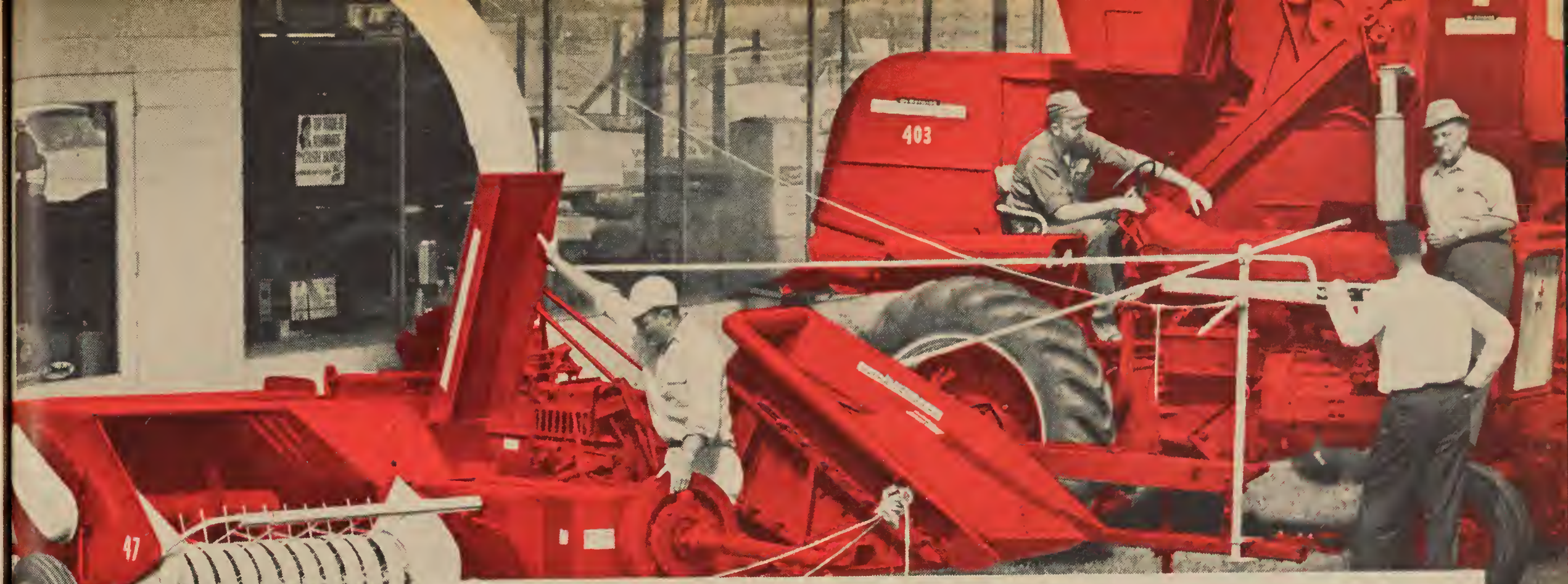
New Vaccine — Through the combined efforts of Diamond Laboratories of Des Moines, Iowa and the University of Illinois a new vaccine has been developed for the prevention of transmissible gastroenteritis. The vaccine has been named TGE-Vac, is administered to a sow two months prior to farrowing, with a booster shot a month later. TGE-Vac is available only from veterinarians.

Rhinitis Cause — Three Cornell scientists believe that infectious atrophic rhinitis is caused by an imbalanced diet. In experiments with twenty-eight healthy Yorkshire pigs (weaned at 3 weeks of age) Drs. W. R. Brown of the Veterinary College and W. G. Pond of the College of Agriculture found that the pigs fed a below-normal

level of calcium (or on calcium-phosphorus imbalanced diets) exhibited the slow growth, sneezing, discharge, and lameness typical of the disease, and a degeneration of the bones of the nasal chambers. Also, other bones showed decreased density and other abnormalities, and the parathyroid glands were enlarged.

Breeding Control — The dream of the livestock industry for mass control of breeding cycles in cattle and sheep is now possible. The agricultural division of the Upjohn Company has developed a feed supplement to synchronize heat periods in meat and dairy animals.

The new supplement, Repromix, has been tested in field trials over the past four years in 20 U. S. states, Canada and Jamaica. It is first being marketed to feed manufacturers in Montana and Iowa, two states that will enable the widest possible experience with range and feedlot operations.



EARLY TRADER'S BONUS



ETB is here again! 61 days of sweet tradin'

The sooner you trade the more money you earn. Now's the time to hit your IH dealer! From November 1 until December 31, he's ready to give you a bonus check just for trading early.

Trade within these 61 ETB days from November 1 until December 31—and you'll not only earn an ETB bonus but may be able to take advantage of the investment tax credit and depreciation allowances on your income tax—and save even more.

On any qualified wheel tractor you'll earn instant interest at 6% from the day you trade until April 1, 1966. On other qualified major machines you'll earn from date of trade until August 1, 1966.

And you'll earn a bonus to April 1 on any group of smaller and separate tools that total \$1000 or more.

You can earn as much as \$225 on an 806 tractor, \$500 on a 403 combine*, and \$985 on a 422 cotton picker*. And more or less on hundreds of other machines.

If you trade for a new tractor, you'll also earn bonus on any qualified implements you buy with it.

The bonus is figured at 6% on the amount of cash or trade that you put up. Any piece of machinery that you want to trade can earn you a bonus.

So check all the machinery that you might want to trade for and get movin' today. The sooner you trade the more you earn.



the people who bring you the machines that work

*Eligible for ETB bonus if delivery is made after December 1, 1965.



Gayway Farm Notes

by HAROLD HAWLEY

TRIMMING FEET

We recently had a professional foot trimmer in to work on some of our cows' feet. They tend to grow too long now that the cows aren't walking up a long dry lane to pasture. This man shortened up the toes and sloped the foot back to front so as to improve posture. This will help them to stand better on their feet with less injuries, and will help to prevent the pasterns from stretching and breaking down.

We do some foot work too, but will let the pro do most of it the first time over. One of the interesting things about watching him work was the time and care spent in getting his tools razor sharp — and I mean just about that. He wore gloves to prevent nicks on his fingers. We do a lot of our work with a knife and clippers; he used chisels almost entirely.

The first step was to trim the end of the hooves off with the foot on the floor. A chisel and rubber maul did this in a hurry. Then the foot was laid on a box and a chisel pushed from back to front to remove some extra growth. It left the cows so much better on their feet that I'm sure the results will be well worth the cost.

The man's skill was so great that he made it look real easy, something like Willie Mays taking a long fly ball over his shoulder while on a dead run. After he left, we found we still had to work pretty hard at the job he did so easily and so well.

TEAM SPIRIT — '66 STYLE

Across rural America (or at least the small segment of it that I've been privileged to observe), there seems to be a kind of down-in-the-mouth, beat attitude about the future of legislation for, about, and of concern to farmers. This has come about in several ways and for many reasons.

Reapportionment certainly causes concern to all farm people and rural communities. The decline in numbers of farmers obviously leads to a reduction in farmers' legislative effectiveness.

The Department of Agriculture tactics in denying wheat farmers a referendum after they had voted out the wheat program, plus the whole push to make the "voluntary" programs such that the economic coercion is effective, causes much concern among farm people.

Not of any less importance are the apparently irreconcilable differences among and between farmers, farm groups, and farm or-

ganizations. Many are naturally apprehensive about labor's inside track all the way to the White House. All these and other forces have caused many good sincere people to say they question the value of further effort.

For what it may be worth, I'm guessing there has seldom been a time when good sound effort and thought were more needed — and liable to pay off, too! Maybe we forget that even perennial winners have off-seasons — witness the Yankees! Maybe we should review our history lessons and be reassured that no party or combination of forces stays on top forever in this country. It's a lead pipe cinch that some sound long-range proposals which make sense are bound to be stepping-stones on which someone will move to victory.

It seems obvious that the big opportunity for farmers in 1966 is to study together to the end they can agree on programs and goals, so that they may be in position to offer their best thinking. It's in times like these that we more than ever need some team spirit, some sense of loyalty, some willingness to hang in there and fight and pull together. The time is probably ripe to start up "overnight success organizations" who are long on promises when the regular farm and industry organizations don't seem to be able to get the job done. Good, sound, well-financed and well-run co-ops and general farm organizations with a history of service and concern, still seem like the best bet to serve and speak for agriculture. They deserve our loyalty and backing, particularly now when the going is rough.

HAYLAGE SPOILAGE

Many folks who stop in at our diggings ask about the amount of spoilage we have in our haylage stored in a conventional silo. It's more fun to report on something that works out real well, so we are happy to tell them that spoilage has been negligible.

Last year we weren't able to cut the crop as fine as we would have liked. Consequently, it gave some trouble with the silo unloader, and it did not feed out smoothly from our feeding auger unless we fed corn silage along with it. Also, being a little longer, it didn't pack quite as well and there was some waste at the top. There was about 3 to 4 inches of waste under the plastic cap and some around the outside.

This year, with a much finer cut and with the haylage a little drier, loss was at a minimum. We

took off less than an inch of spoiled material from under the plastic, and a band 6 inches in from the wall and about 10 inches deep. In all, there was about a spreader-load from a silo 22 feet in diameter.

I'm sure there must be a better way to do it, but after becoming discouraged with the levelers we used last year, we just kept the stream centered in the middle of the silo and let her fill. And we are doing the same with the corn silage this year.

NO WEALTH-NO WORRY

The old success story involves inventing a better gadget, patenting it, and letting the eager buyers make you rich . . . after which you proceed to live happily ever after in spite of your wealth.

Son Bruce recently came up with what we think is a real good idea which can't possibly make us a dime. If you can use it, you are most welcome.

Instead of a regular strip cup to check our cows, he slid a 6 inch length of an old inner tube over his wrist. It's just as good for spotting trouble, and is always right there handy by. We've been using this for several weeks and wouldn't give a hoot for another regular strip cup as this is so much handier. It also helps to keep the wrist watch dry as we wash the udders!

MORE CHANGE

Fertilizer application methods around here have really undergone a basic change in the past year or two.

First it was getting ingredients "made up" to each field's soil test indications. This custom-mixed fertilizer was spread and then plowed down ahead of the corn crop.

Then the suggestion was made that fertilizer be spread on partially-fitted small grain seed bed, dragged in, and the seed drilled. This eliminates the handling of fertilizer at time of drilling and saves money, too.

Frankly, I was a little skeptical about a big truckload of fertilizer running over loose, partly-fitted ground, but it appears that the wheel marks can be pretty well disked or dragged out. I'm for the elimination of all that handling, and certainly not averse to cutting costs . . . so this is for us.

On corn this year we thought we learned a little something. We ran out of bulk fertilizer (spread before plowing) on one field, so I marked the place and fertilized heavier with the planter. Possibly because it was

so dry, the plowed-down fertilizer made roots go deeper for nutrients to where the moisture was. At any rate, the corn was better where we plowed-down most of the plant food and just put on 75 pounds with the planter than where we fed all the fertilizer through the planter. I believe that even in a year of normal moisture it will be beneficial to make the roots reach down for the fertilizer.

MY KINGDOM

FOR A DRAIN!

Over the years one of the least satisfactory things around our place has been the drain in the old milk house. It would handle a quart of water fine, but any more or any large amount at one time would cause it to air-lock completely. Then all one had to do was to stick his finger in one of the holes and lift it up so the water could enter. How many times I've done this I don't know.

When we built the new milk house and parlor this was something we were going to improve.

Much larger drains were installed. The results were as you might expect . . . it takes two quarts of water to stop them instead of one. We've tried chipping the end of the pipe beneath the cover to increase flow. The only effective thing we've come up with is to leave a small piece of welding rod under the cover so as to hold it up a little bit. Surely someone must make a different style of drain cover and trap that can and will handle a lot of water at once without getting an air-block or whatever. Any ideas?

UREA ON CORN SILAGE

We had planned to devise a way to meter urea on the corn silage as it entered the blower. We wanted to add 10 pounds to each ton of silage, and it seemed like an easy chore to rig a hopper with a small electric motor driving a metering wheel. We tried, but it didn't work out well, and as it was time we were at the filling job we decided to climb a ladder to the top of each load and throw on about 40 pounds. We had a load of silage weighed to see what we were actually hauling. This is a nuisance, but as long as we get it on evenly I guess it will serve just as well.

If all works as we hope, the corn silage should come out with 11 to 12 percent protein. With good high-quality haylage and a feeding of high-moisture ground ear corn mixed in we hope to cut the amount of purchased pellets to a minimum this winter.

GRAIN CORN

This year, we are setting up our field chopper at the silo and bringing high-moisture corn and cob to it from the picker.

The plan is to put a one-inch re-cutter screen behind the knives so as to pretty well beat up the cobs and grain. Whether we can

(Continued on page 17)

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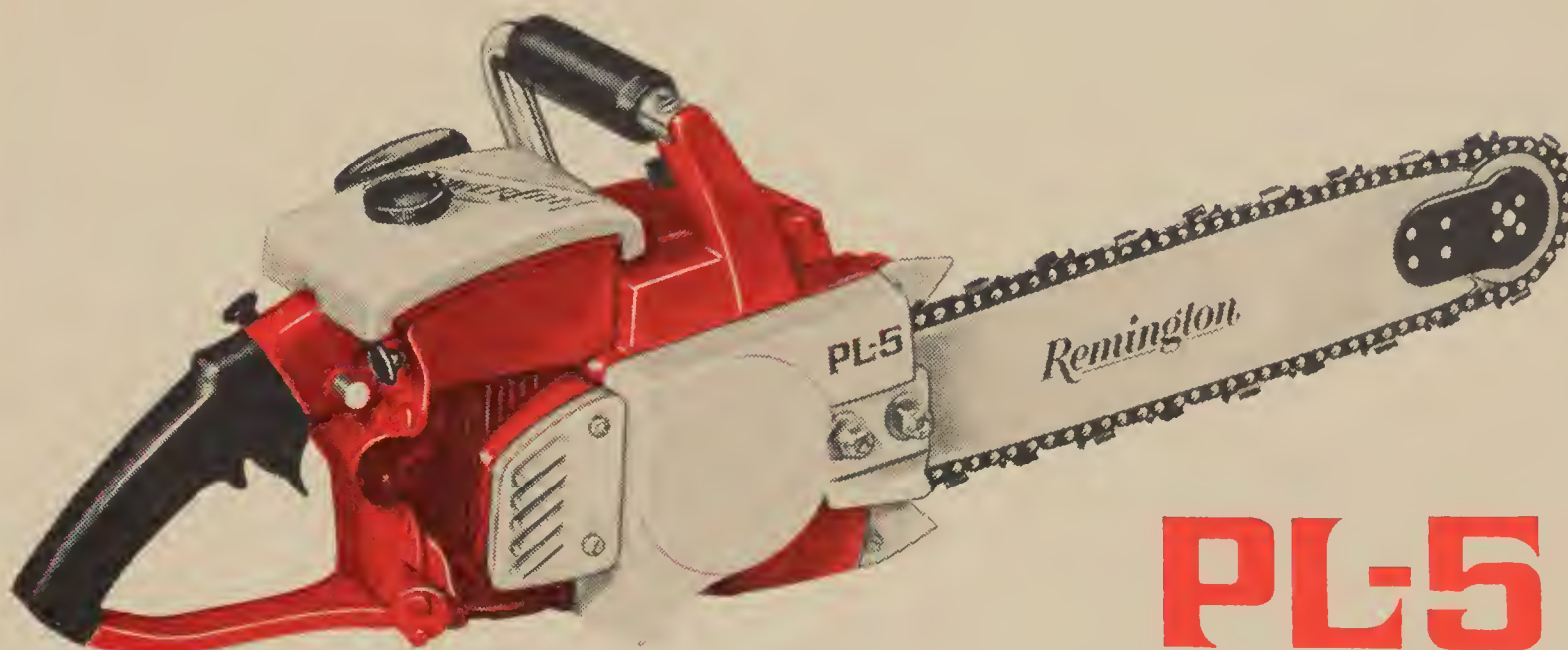
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Harold Ely prepares milker.

OAT SILAGE

We ensiled our 12 acres of oats in '65, at the milk stage when heads were out of the boot. It took two days to get them in the silo using a direct cut chopper head. They were seeded with Vernal and Cayuga alfalfa; in some places the seeding was a foot high when the oats were chopped.

Black plastic was used to seal

the top. We crown the material in the silo slightly at the center, then bring the plastic up the side of the silo a foot or so. Then water is pumped on the plastic "cup" formed to complete the seal . . . spoilage was practically nil.

For fertilization on oats, we used 350 pounds per acre of 5-10-10 with the drill, preceded by 400 pounds per acre of 0-20-20 broadcast after plowing. We have used 4-(2,4-DB) amine to control weeds on oats that were seeded, but didn't this year because we planned right from the start to ensile them.

Our dairy barn was recently remodeled to hold our present herd of 60 cows; it includes room at the end so both gutter cleaner discharge and manure spreader can be inside the barn. A translucent roof panel forms the door at that end . . . swinging up and out so there are no overhead door tracks in the doorway for cows to jam up going in and out.

Part of our mangers are dished, part are completely flat. We prefer the flat ones because they can be cleaned out so much easier, and they tend to stay drier. We've already filled up some of the mangers whose bottoms were built below the level of the feed alley and probably will fill the others. — *Harold Ely, Montrose, Pennsylvania*

CORN SILAGE

Two years ago, in 1963, we grew 25 tons of corn silage per acre; forage tests showed it contained 70 percent TDN. At that yield, and with a good level of total digestible nutrients, it makes a cheap feed for our 32-cow dairy. Our figures show cash costs on silage corn for seed, fertilizer, and spraying Atrazine to be \$20 per acre.

We started planting our 19 acres of corn on May 5 in 1965 and finished on May 22 . . . most

of it Pa. 290, a 90-day corn, and the rest was Pa. 444 which is rated as 100 days. Using rows 38 inches apart, we shoot for 30,000 plants per acre with our two-row corn planter.

Adequate lime is the first thing we think about; we put 65 tons on 58 acres last year. Two tons per acre is the highest single application we've needed to reach the 6.5 to 7 pH desired. This year we plowed down 200-350 pounds of 30-10-0 and added 150-200 pounds of 10-30-10 with the planter. The pounds per acre applied varied depending on the results of soil testing. Our goal is 30 tons of silage per acre and it looks as though we hit it in '65.

We plow eight to nine inches deep and harrow just enough to level the ground off . . . usually twice over, but now and then three times.

Silage is fed once a day, at least 40 pounds per cow. — *Edward Rudball, Uniondale, Pennsylvania*

Personal Farm Experience

The items on this page all come from the firing line of farm production.



PLANS TO EXPAND

Over a year ago Dad and I decided that our herd of 40 milkers was too small to give a satisfactory income for two families. So we began to plan to expand, and visited a dozen or more farms to get ideas for providing more room for cows.

We plan a pole-type addition to the barn with free stalls to provide space for 60 to 65 cows . . . and perhaps eventually for 100.

We can grow plenty of roughage (in 1964 we sold 65 tons of hay). Our corn acreage has been increasing, and will get even bigger. Corn follows corn on some land, but we try to have silage corn follow corn for grain, where the stalks are plowed under. All the manure from the herd goes on corn ground. We have been growing a good part of the grain for the cows on the farm.

We will need another silo, and are considering storage for high-moisture shelled corn. We did some figuring on a bunker silo, but the land around the barn tends

to be wet in fall and spring.

Our aim, of course, is to produce more milk per man, and with the new setup we figure we can do it with less labor than at present. — *James Baker, Ithaca, N.Y.*

SUGAR BEETS

We fall-plowed in 1964 the land where we planted 33 acres of sugar beets in 1965 . . . figuring we could plant a little earlier in the spring. None of it was sod; some was corn stubble and the rest dry bean ground.

We used just under two pounds of beet seed per acre . . . still twice too much if every seed grew! Our choice was the larger of the two sizes of monogerm seed available. Fertilization rate was 800 pounds per acre of 10-20-10 (with added boron). Planting began May 10 after fitting twice over with a springtooth harrow.

Come-up was uneven, and we decided to hand-thin and weed at the same time. Herbicides were applied at planting time . . . Pyramin plus TCA . . . but the season was too dry to have them do much good. Cultivation was done three times, cleaning out weeds between rows . . . but hand-weeding was necessary for weeds in the rows.

It cost us \$20 per acre to hire migrant laborers on an hourly basis to thin beets and chop weeds. One of the three cultivations was done after hand-weeding . . . to throw dirt back on beets where it had been pulled away with hand-hoeing.

Crop growing is like a poker

game . . . you have to keep investing after you've anted up in order to have a chance to win. We don't mind the investment in hand-labor if the tonnage and sugar content prove to be high enough to warrant it. — *Horace Reynolds, Poplar Ridge, New York*



ROADSIDE STAND

My dad, Harry, and I have 65 acres in fruit and vegetables, 35 that we own and 30 that we rent; also 11,000 hens.

About a third of what we produce is sold at a roadside stand, and to round out what we offer we buy peaches and melons. What eggs we do not sell at the stand are retailed.

Our main crops are sweet corn, tomatoes, peppers and beans. We sell quite a lot of stuff in volume to customers who freeze or can.

We have someone at the stand when it is open. We tried "serve yourself" on the honor system with eggs. It worked for a while, and then someone helped himself at

the box a couple of times so we discontinued it.

The stand is an important part of our comparatively small business, but we do grow some grapes and tomatoes on contract. — *Bill Klantz, Northeast, Pennsylvania*

ONE-MAN FARM

We have 35 milkers and have no plans to get bigger. This is essentially a one-man farm.

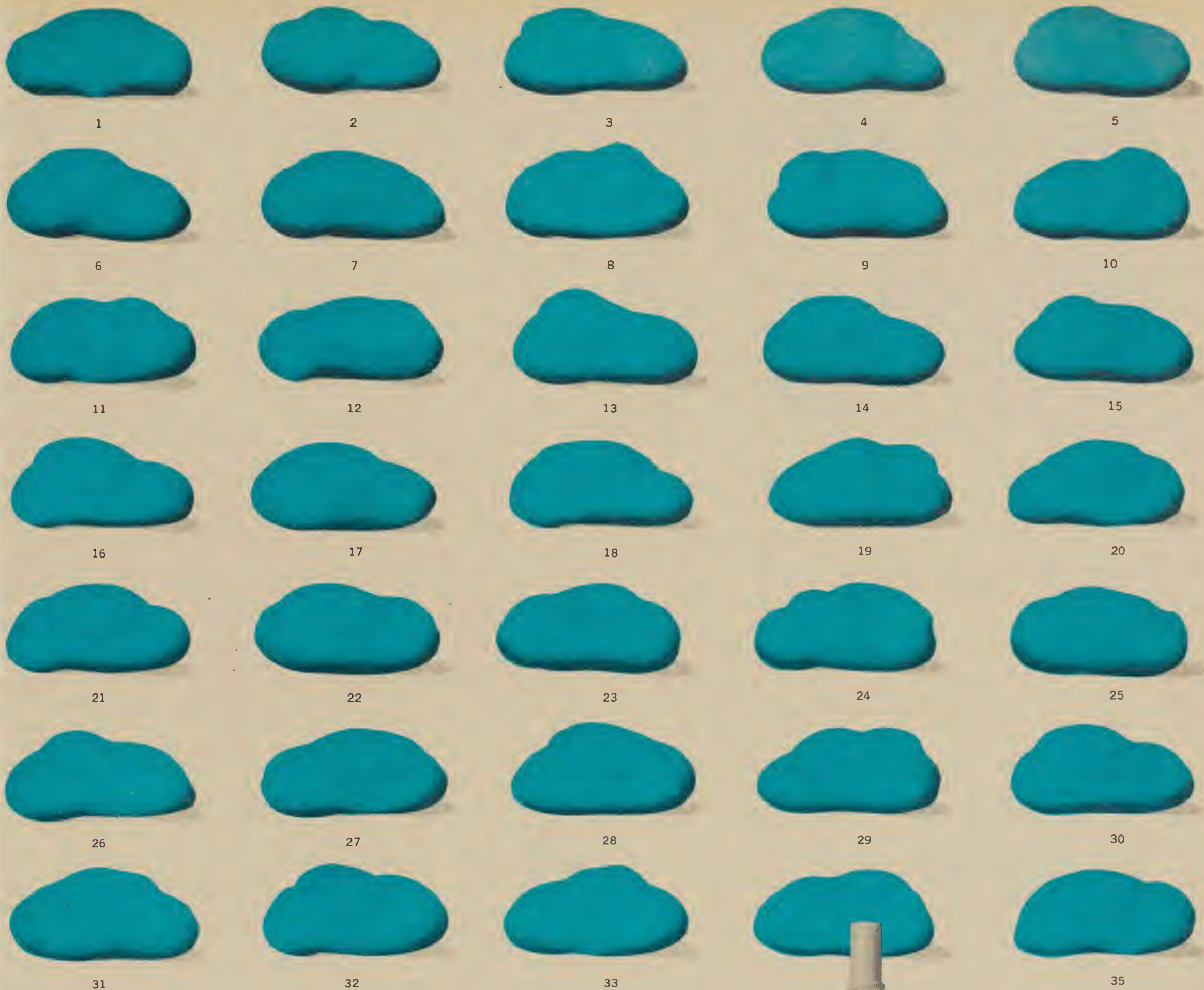
Back in 1946 I raised a heifer calf as an FFA project. While I was in school I raised more calves, even sold some milk. After graduation I took a job for two years, but kept the cows.

Then I sold ten to help make a down payment on the farm where we now live. I intended to hold on to the job, but before long I bought 10 cows to add to the 7 near-fresh heifers I brought with me, and went to farming full time.

We hold down equipment costs by owning some tools in partnership. Herb Ley and I own a mower, rake and baler with bale thrower, and also help each other to put up hay. We each have a tractor, and use both of them on both farms. Then I hire some work done, including silo filling, and this past spring I traded some corn planting for some plowing. I also do some custom work with the corn planter.

As a boy I belonged to a 4-H club, and that and FFA were a big help in getting a start in farming. I believe there is still room for the efficient, one-man dairy farm! — *Gordon Cook, Ludlowville, N.Y.*

American Agriculturist, November, 1965



Each of these 35 puffs of foam can kill a rat...

and they all came out of this tiny can

Try to recall the biggest, ugliest rat you have ever seen. Imagine him running from his burrow toward your corn crib. Suddenly he stops. There before him is a teaspoon-sized puff of RATicate*. It smells good. It looks fresh, moist, inviting. He eats it, then heads back for his burrow. In just 15 minutes to 4 hours, he is dead.

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RATicate also comes in new grain bait trays...
10 trays to a box—enough to kill 10 rats*





He moved up

The Ownership Ladder

by Jim Bodurtha*

HE DIDN'T CARE really whether or not he went to work at the farm in 1944. He had just graduated from high school at Williamson, New York, and the world presented other demands and opportunities. But Donald De Marree was born and raised on a vegetable farm, there was a real farm labor shortage, and Mr. L. A. Wilson, president of R. P. Wilson Fruit Farm, Inc., who invited him to work at the 200-acre farm, had long been a family friend. Today, Don De Marree and his wife own the farm!

The genial young man pitched in at the apple, cherry, plum and pear-growing place as a laborer for ten years. He married Margaret Tapp, and moved into one of the farm's homes in 1947. Seven years later he was made manager of the Wilson farm, and in 1962 he bought it. "We went into this sort of on a shoestring," Don says today. "The potential of the place had not been fully realized, I felt, and I had confidence in the operation. Yet it was something for which I thought you needed more cash than we had."

A Good Manager

The Farm Credit Service Associations at Rochester and Sodus also had confidence... in the operation and in Don and his wife, too. The Federal Land Bank Association of Rochester, and the Rochester Production Credit Association loaned the young couple almost \$70,000 to buy and operate the farm... right up to the hilt, you might say.

But Don Johnson, in charge of the Farm Credit Service offices at Sodus, says: "While in most cases a lending institution might not

have gone this far, it was an exceptionally good business proposition... and it has succeeded wonderfully well. Don is an excellent manager, and Mrs. De Marree is a great asset in the farm record department.

Mechanization

Mechanization is part of the reason for Don's success. "Since 1957 everything has been handled mechanically," he points out. This means 20-bushel apple bulk boxes, fork lifts, cherry tanks, concentrate speed sprayer, five tractors, two trucks. Mechanization has enabled Don to reduce his farm labor force from three full-time men to two... Eligha Hill, who came up from Florida in 1958, and Eligha's stepson, Jesse Williams.

Mechanization has also helped to maintain or improve the quality of crops from 154 acres of apples, cherries, prune plums and pears. "I've been fortunate over the past few years," Don emphasizes. "Insects have been almost 100 percent controlled." The reason, he thinks, is concentrate spraying. "When you spray dilute, a large portion of the solution may run off; the air-blast machine uses air more than water to get the materials on the trees." All he needed do on his speed sprayer was reduce nozzle size. "Concentrate spraying saves water and filling time, too," Don adds, "and this is important. I can put on the equivalent of 60 dilute tanks with 12 tanks of concentrated spray now. And most of the good modern materials can be concentrated."

Of course, the Wayne County

fruit expert acknowledges that you don't concentrate when you want a real drenching effect.

Don De Marree estimates that his annual pest control chemicals expense of \$6,000 or so might easily be \$8,000 were it not for the very effective concentrate sprays, plus "paying attention to details." Don's mouse control program is double-barrelled: (1) zinc phosphided corn as poison bait and (2) amazine herbicide sprays to prevent growth of grass close to the tree trunks.

Sevin insecticide is used to thin all apple trees. "It's safe, pretty much," says Don, "and you get its insecticide action, too." He thought it over-thinned Golden Delicious and Romes a bit, however, and maybe on Rhode Island Greenings (at 70 acres his chief apple variety) not quite enough. "I don't think it was adequate, really, on Greenings. I would not depend on it alone." Guthion insecticide is also an important material in Don's annual spray schedule, which features some 14 or 15 separate sprayings.

Apples Main Crop

Apples are the main crop at the De Marree Fruit Farm. There are about 100 acres, with some 10,000 trees. Ninety percent of the crop goes for processing, chiefly to Borden Company's Comstock Foods at Egypt for pie fillings. Last year Don also marketed some 7,000 bushels of apples to Table Talk pies in Worcester, Massachusetts. The relatively small amount of fruit sold fresh is via sales at the farm or through J. H. Verbridge & Sons in Williamson.

While Rhode Island Greenings remains his leading apple variety, there is constant change. McIntosh is presently his second-ranking variety, but his new planting program calls for more Golden Delicious, Rome and Wayne. Golden Delicious is the preferred variety for apple slices, Don finds, but it's late, while Greenings are predominantly mid-season. That makes Wayne, an early dual-purpose variety, especially good to start and fill out the whole processing season. Comstock Foods Inc. is supplying Wayne whips to growers at half cost. "While excel-

lent for processing," Don stresses, "Wayne also makes a fancy fresh product."

Despite Wayne's value, Don believes the Rome variety is destined to rank next in importance to Greenings as a processing apple in coming years. He now has about eight acres of Romes. Golden Delicious, he expects, will replace Northern Spy. "You just can't afford to grow Spies, with their alternate bearing years," he says... yet he laughs in observing that, even though he enjoyed one of his most bountiful Spy years ever in 1964, inexplicably his Spy trees were all white in blossom again this Spring. Perhaps it has something to do with weather.

"About another year of drought," says Don, "and I don't know what is going to happen." Certainly not production like the 1,100 bushels he harvested from 45 Northern Spy trees last year. There was some winter injury in the orchard, too... not so much on Spies as on Rhode Island Greenings. Don attributed it to the real cold snap that occurred last November 18 before the trees hardened down. Fortunately, he found only about six trees that didn't "come out the way they should." His other apple varieties include Baldwin, Ben Davis, 20-Ounce, and Wealthy.

Hedgerowing

Don De Marree is hedgerowing all fruit tree plantings now, and has filled in some areas of the older standard trees with dwarfs. To get higher production? "Yes, in part," Don says, "but also to get knowledge. After twelve years we can see what the results actually are with dwarfs. Fruit production is a long-term proposition, you know."

Fertilization and pruning of dwarfs is entirely different, he points out, because they are more shallow-rooted. "It's a very specialized thing." One hundred fifty of his Golden Delicious dwarf trees are interstem-dwarfed. "I think this is really the more expensive way, however," he comments. "If you can get dwarfing through just the rootstock, why go to interstem?"

(Continued on page 19)



Don values highly the tractor cab he built himself. It's great for keeping warm... and unsprayed!

* Agricultural Consultant, Ridgefield, Connecticut

"What'll I do? I can't afford a big expensive system for manure liquids!"

Look to New Idea

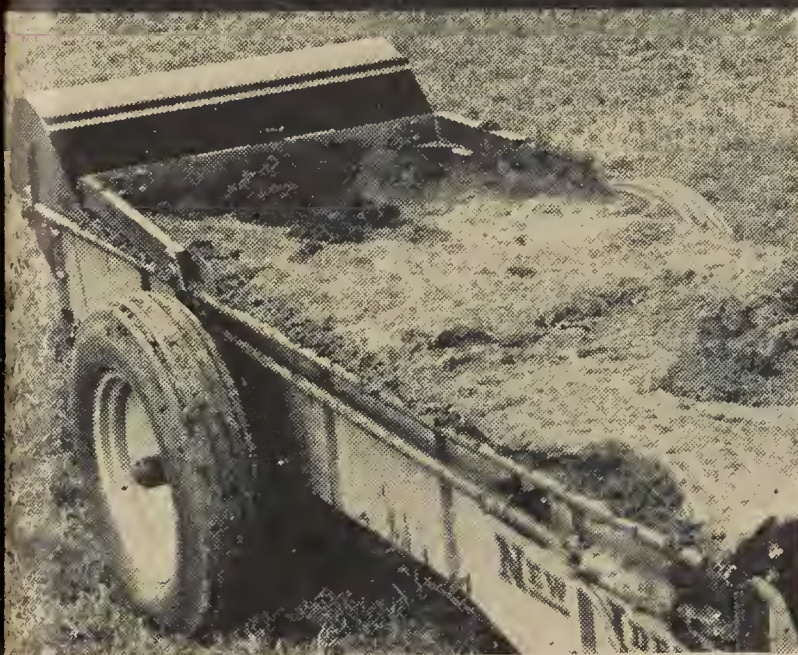
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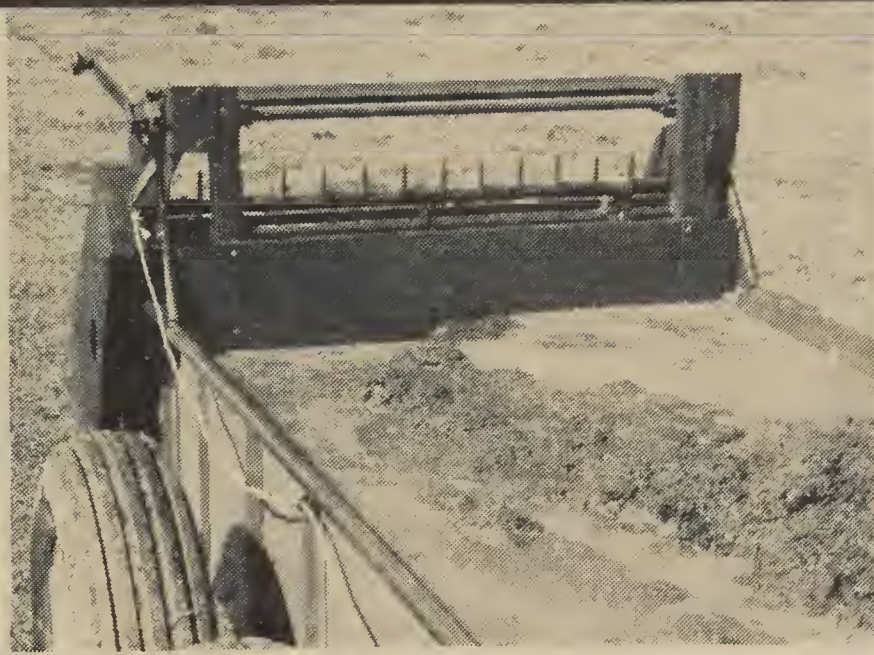
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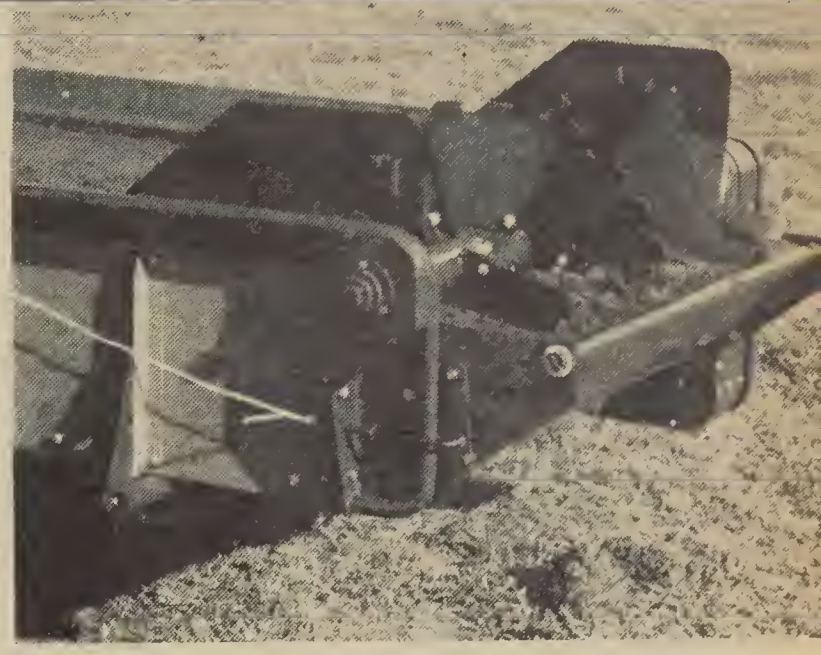
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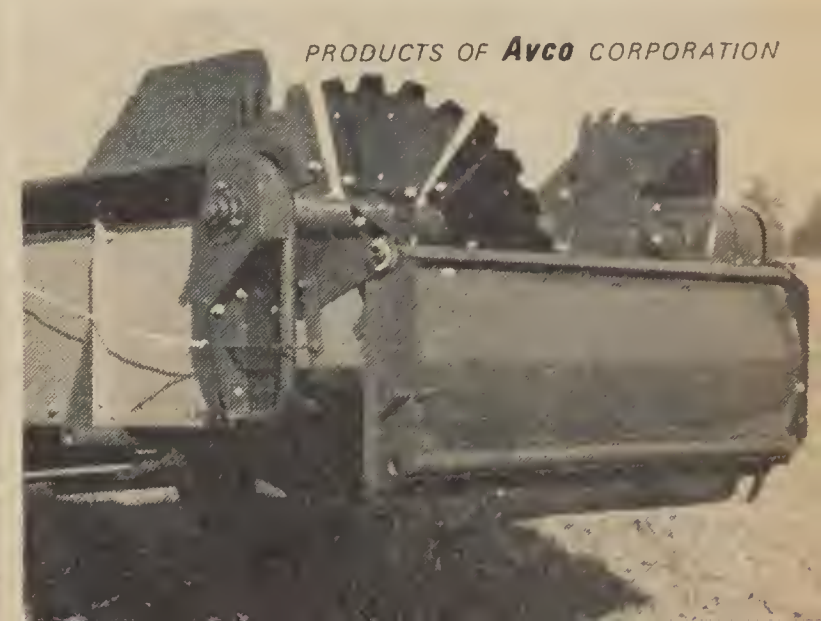
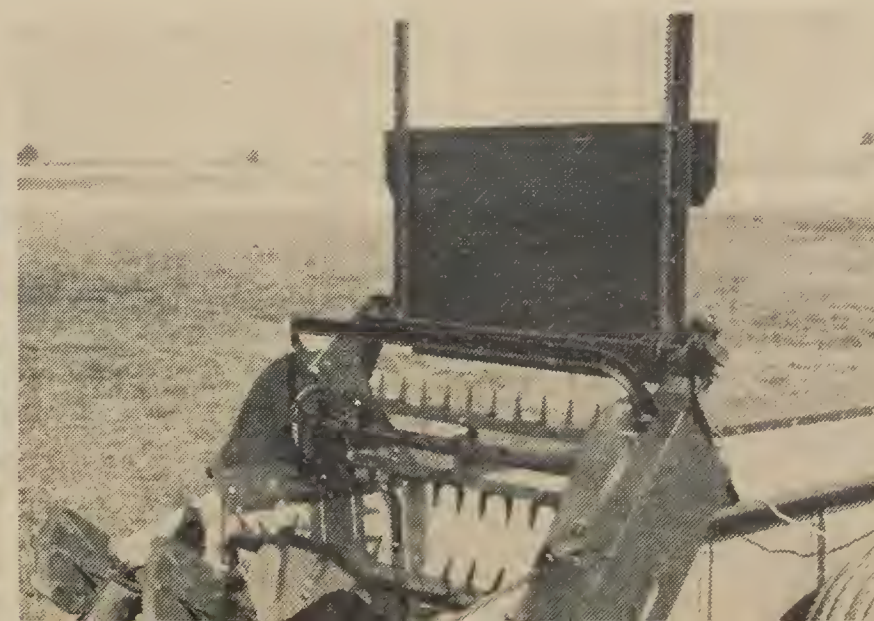
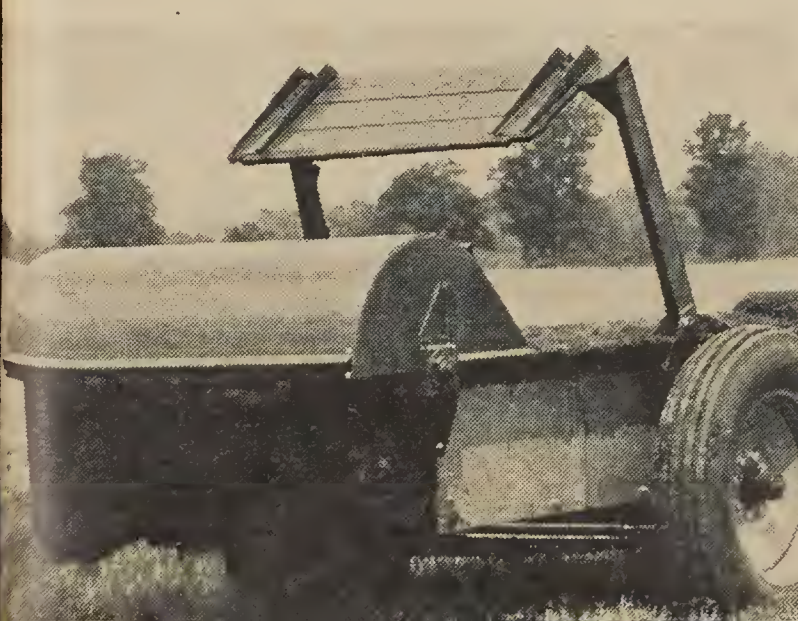
HYDRAULIC ENDGATE. Fingertip control of endgate. Uses standard 8" single or double acting cylinder. Keeps liquid off roads and lanes. Hand crank also available. Fits all New Idea Flail and Single Beater spreaders.



MECHANICAL ENDGATE. The economical answer for farms with semi-liquid manure to spread. Easily operated hand crank opens and closes "gate." Snug fit for loading and hauling; fits all New Idea spreaders.



PAN ATTACHMENT. Lowest cost way to handle semi-liquid manure. Rubber flap seals pan in closed position. Tug on the rope and the pan empties. Fits any New Idea Single Beater spreader.



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Two Essential Harvesting Tools!!



Your clock and radio are two essential harvesting tools, from the day the first field of early-cut hay is mowed in unpredictable May, through the day the last field of late-maturing corn for grain is picked in blustery December. And that same handy harvest help is at your finger tips for every crop from Apples to Zinnias.

Your best radio guide to good harvesting weather is WEATHER ROUNDUP at 6:25 and 7:15 A.M.; 12:15 and 6:15 P.M., over these stations.

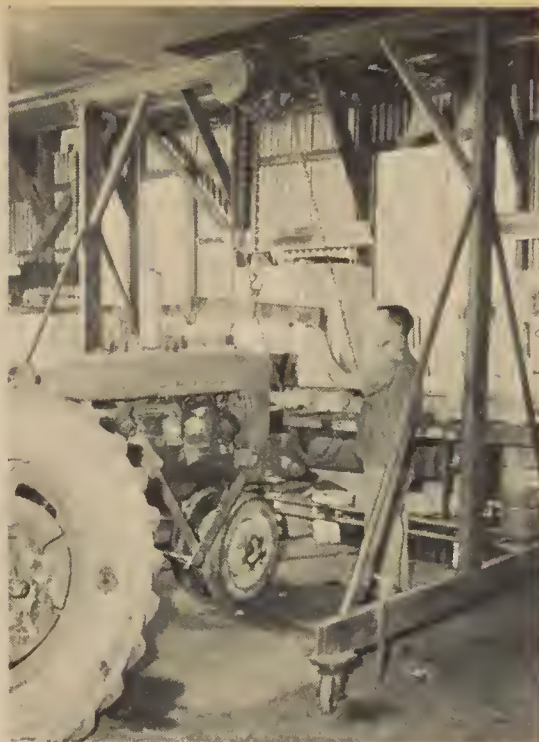
FM STATIONS

Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oneida	WMCR	1600 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.			

Northeast Radio Network
Ithaca, New York



ROLLING CHAIN HOIST

A rolling chain hoist is handy inside or out of the farm shop for working on motors, tractors and large machinery and mounting equipment on the tractor. This one was welded with a 10-foot crossbar of 5-inch I-beam supported by two 2 x 6-inch by 10-foot channels braced with 2½-inch pipe under the crossbar and 1½-inch pipe to the base.

The base was 2" x 6" x 8' channel iron boxed at the ends to fit swivel casters and in the middle to give extra strength at the post. Hand screws keep the house casters from moving.

The chain hoist can roll on the I-beam. Ends are 9'4" apart and tied by a pair of 1½" pipes at the back. A whiffletree of 4-inch channel iron 33 inches long with end loops is used with the hoist.



HOG HINTS

Farrowing stalls are on a slat floor supported by joists resting on concrete blocks in this farrowing house at the University of Illinois, Urbana.



MOVABLE BEE HIVE

A stout, all-weather, movable stand for bee hives can be built using a pair of expanded metal sheets lapped lengthwise, with

an edge of each rolled down to furnish side support. Welded trestles of flat iron and pipes form the framework. A piece of flat iron bolts the expanded metal to the top cross-piece of each trestle. Not only can the stand be moved as it is but can be taken down quickly by removing nine bolts.



GOOD LIGHT

A large light bulb on a long extension cord with the socket mounted in the headlight from a car makes a good shop working light. It is mounted on a bracket, so it can be directed, and telescoping pipe fitted to a car brake drum.



GETS ATTENTION

A chain hung from the rafters gets considerable attention from hogs raised in confinement and seems to reduce tail biting.



HANDY HANGER

A U-shaped hanger mounted on the regular bolts of the power drill allow it to be hung on the tool rack or wall hook. A small iron rod was bent U-shaped, the ends flattened and drilled for the bolts.

Take-off

(Continued from page 6)

ly independent control of the pto clutch.

Some implements which mount on the three-point hitch also use the pto hook-up. Proper installation is essential for correct telescoping action when you raise and lower the hitch. Check also for proper installation of safety shields. In most cases, some sort of stabilizer or brace is needed to prevent side-to-side movement of the hitch, which would add extra loads to the pto drive.

Some stationary machines, such as corn shellers and forage blowers, are available with a pto drive instead of the conventional belt pulley. Thus, it is not necessary "to get lined up" as was required with a flat drive belt. However, the driven machine should be set parallel to the tractor rear wheels, even though it need not be in line.

Hawley

(Continued from page 10)

then blow this right up the pipe and into the silo with the chopper, or whether we must first move it into the blower and then up the pipe remains to be seen. We naturally hope one tractor on the chopper can do the whole job.

Several have warned us that our chopper can't handle ear corn fast enough to keep up with the picker. This may turn out to be true, but we are going to try it anyway.

Why is it that all these changes and improvements always seem to require so much time to get rigged up and going the first year? Once set, this system should go much faster than cribbing corn, but the first couple of days of trial and error will likely be a little less than satisfactory.

SOME DE-ICERS

Rock salt and other commonly used de-icers are effective in removing ice and snow, but they can ruin a good lawn. Tests with urea, a nitrogen compound used in commercial fertilizer, have shown it to be quite effective as a de-icer . . . and it has a beneficial effect on lawns and shrubs instead of the toxic effect with salt. If it's used at the rates and times recommended, the run-off that occurs as the ice melts can actually feed the plants with nitrogen.

Urea costs more than rock salt or calcium chloride, but it is worth it considering the plant food value, and that it is non-corrosive to metal, has very little residue to track into the house, and won't damage or discolor floors or carpets. The rate of application varies according to conditions, but ten pounds of urea per 100 square feet should do the job under most circumstances. Urea is especially effective at the 25 to 30 degree temperature range.

When writing to advertisers be sure to mention **AMERICAN AGRICULTURIST**.

Here is your chance to win a 1966 Mustang Hardtop with a 200 h.p. V-8 engine and stick shift . . . or a beautiful RCA 21" Mark XI Series Color TV set . . . or an attractive 19" RCA All-Channel Portable TV . . . just for entering your name . . . no purchase is required.

The Northerner Win-A-Mustang Sweepstakes is to introduce you to the newest addition to the famous Northerner line of sport and work boots — the Northerner Bird Boot. From your very first step in a pair of Bird boots you'll walk in comfort, because — like all Northerner boots — no break-in is needed. Bird boots have rugged Alpine-style cleat soles for long wear and sure-footedness on any surface. They have full cushion insoles,

and they are all rubber and guaranteed completely waterproof. Bird boots are available in 8" heights in Leather Red and Field O.D., insulated or non-insulated, and in 12½" height, insulated, in Field O.D.

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1ST PRIZE 1966 MUSTANG
V-8 HARDTOP

2ND PRIZE RCA 21" Mark XI
Series Color TV

3RD PRIZE RCA 19" Pickwick
Portable TV



CONTEST RULES

1. On a Northerner Sweepstakes entry blank or a plain piece of paper print your name and address and the name of your participating Northerner dealer.
2. Deposit your entry blank in the official Northerner Win-A-Mustang Sweepstakes Box at one of the listed dealers, or mail it to: Northerner Sweepstakes, Box 4791, Clinton, Iowa, 52733. Enter as many times as you wish. Each entry must be mailed separately. Mailed entries must be post marked on or before February 28, 1966 and received by March 9, 1966. The Sweepstakes closes February 28, 1966.
3. The Sweepstakes drawing will be held April 1, 1966, and winners will be determined by random drawings held by the A. C. Nielsen Company, an independent judging organization. The decision of the judges will be final. Only one prize per family.
4. No cash substitutions, or refunds, will be made for any prize offered. Any tax on any prize will be the sole responsibility of the prize winner.
5. Winners will be notified by mail within 30 days. For a list of winners send a stamped, self-addressed envelope to: Northerner Sweepstakes Winners, Box 4758, Clinton, Iowa, 52733.
6. This contest is open to all residents of the Continental United States, 16 years of age or older, excepting the employees and their immediate families of the Servus Rubber Company and its subsidiaries, advertising agency and dealers, and the A. C. Nielsen Company.
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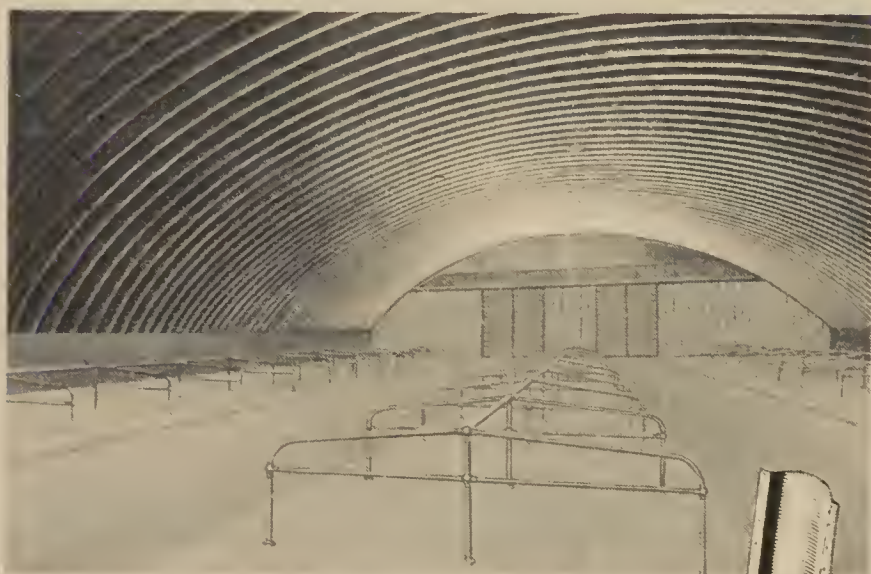
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I'm Bessie...

and I like free-stall housing. It keeps me cleaner, calmer, healthier and Mr. Brown doesn't work so hard — cost him less to keep us too.

Wonder Trussless has the economical answer to free-stall housing. Modular double-corrugated steel arch panels merely bolt together to form a self-supporting arch. No costly truss beams, pillars or posts — 100% useable space. Complete protection — weather-tight, fire and vermin proof, and able to withstand winds up to 140 mph. Wonder trussless buildings are the economical answer to free-stall housing.



Erection time? Matter of days. Cost? About 50% of conventional structures. Worth looking into Wonder? You bet!

FREE! Write or call for detailed drawings on free-stall housing plans.



Wonder Trussless Building, Inc.
2901 South Cicero Avenue, Chicago, Illinois 60650

4 - H CHAMPIONS

Kevin Simpson, Caledonia (left) with his Champion 4-H Pen of Lambs. At right is the purchaser, Robert Bostwick of J. M. Bostwick and Son, Caledonia.



Charles Fitzpatrick of Wayland and his Grand Champion 4-H Lamb.

James Warner, Candor, and his Grand Champion 4-H Hog.



Tim Howland of Newark Valley with his Grand Champion 4-H Pen of Hogs.

Susan Dorr, Black River, with her Grand Champion 4-H Steer. At right is Frank Baehler of P & C, Syracuse.



American Agriculturist, November, 1965

SCHULTZ

SPREADMASTER

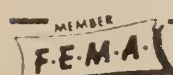
PTO Manure
Spreader

Builds soil faster, easier . . . at lower cost!

**LOW MAINTENANCE
HIGH PERFORMANCE**



110- to 175-bushel capacity — choice of wood or steel sides — single or double axle — single beater and double beater models. Builds soil faster, easier . . . **AT LOWER COST!**



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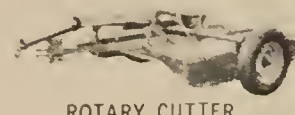
BALEMASTER



TWINMASTER



TANK SPREADER



ROTARY CUTTER

Ownership

(Continued from page 14)

He sets cherries 18 x 27 feet, removing alternate ones later so as to yield an eventual 36 x 27 spacing. The cover crop in the orchards is orchard grass or ladino clover. "I'm using ladino for seeding new cover crops," Don reports. He brings in 32 hives of bees on rental every spring to take care of pollination of his fruit trees.

Because the De Marree farm soil is naturally acid, Don applies lime to each orchard block every two or three years. His soil has also been shown deficient in potash. He has both leaf and soil analysis done at Cornell University on each block at least every four years.

He generally applies a complete fertilizer (16-8-8) to trees up to six years of age. The standard annual rate is a pound of fertilizer per year of age, except that newly-planted trees receive three pounds anyway. Don has been supplementing this, and substituting for it some years a mixture of seven parts of ammonium nitrate and five parts of muriate of potash. "This is a very good fertilizer for this farm," he feels. It helps particularly to combat the potash deficiency. There has been no problem on boron, or on magnesium, the latter because Don usually uses dolomite as his kind of limestone. His annual investment in fertilizer and lime? About \$2,250.

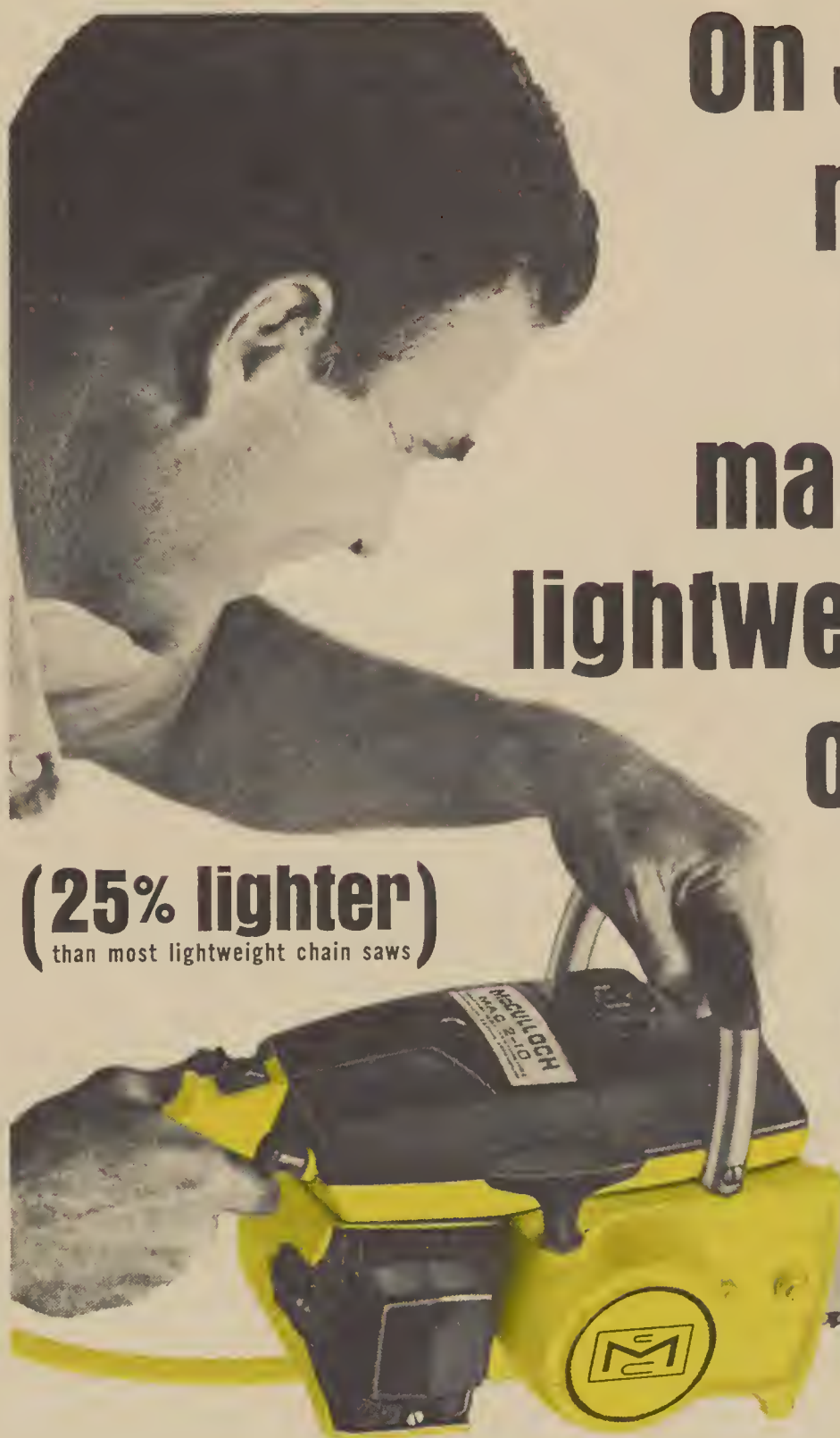
Other Fruits

In addition to the 47,000 bushels of apples he produced last year, Don grew 74 tons of cherries, 250 bushels of prune plums, and 1,600 bushels of pears. The cherries are almost exclusively Montmorency sours . . . also for Comstock Foods . . . but Don recently set out 200 sweet cherry trees for brining. He was lucky in 1963 when nationally a large portion of the sour cherry crop was frozen out while Don enjoyed his "largest crop ever," 75 tons.

Shaker-harvest of sour cherries is part of a Comstock Foods research project. It's done only on the older, stronger trees. "I see no adverse effect," says Don. "I think it's going to be the only way cherries will be harvested in the future." He estimates the tree shaking collection method pares harvesting costs by at least a third. The cherries are first placed in half-ton tanks filled with ice water, then transferred to a six-ton tank for delivery to the Comstock plant for processing. The ice water prevents cherry scald.

Don has also had good luck with pears for Gerber Baby Foods. Fire blight has not been the almost insuperable problem experienced in some areas; in fact, this year he even dispensed with the regular antibiotic spray.

Is Don De Marree going to expand? Probably not. He and Mrs. De Marree have a lovely remodeled and re-furnished farm home on which they did much of the work themselves. Their farm and farming are of a size and scope that fit and suit them well.



(25% lighter)
than most lightweight chain saws

On July 1, 1965 the new McCulloch MAC-10 series made every other lightweight chain saw overweight and out-of-date

MAC 1-10: The world's lightest direct drive chain saw. 10½ lbs.*

MAC 2-10: World's lightest automatic oiling chain saw. 10¾ lbs.*

Easiest Operating Lightweights Ever: The new MAC-10 Series saws are up to 25% lighter than most so-called lightweights, yet have every feature you could ask for.

Automatic Oiling: MAC 2-10 features automatic chain oiling for longer bar and chain life *plus* a separate manual system, so you can supply extra oil for the toughest cutting conditions.

Famous McCulloch Dependability: The MAC-10 Series saws are new from grip to tip. New concepts reduce parts by 30%, yet the MAC-10's retain all the performance, features and dependability you expect in a McCulloch.

Extended Working Life: Unlike some other lightweights, the MAC-10's cylinders can be rebored and fitted with new pistons for years of extra life. The MAC-10 Series has ball and needle bearings throughout, and every working part on the MAC-10's is cast and machined from the finest steels and alloys available.

Longer Running Time: With oversize oil and fuel tanks standard on the MAC-10's, you can cut as long as most full sized saws. And with McCulloch's new single-jet carburetion system and new MAC-10 Series engine design, fuel consumption is cut as much as 12%. Precision engine tolerances allow the use of McCulloch oil at a 40:1 gas/oil mix for even more economy and virtually smoke-free operation.

Power For Fast Cutting: McCulloch's advanced engineering means more usable power. When you make the first cut, you'll know that lightweight doesn't mean under-powered.

Fast, Reliable Starting: The MAC-10's combination of primer and exclusive idle governor means you get fast, sure starts. For added convenience, MAC-10's feature right-hand starting.

Runs In Any Position: No matter what position you cut in, you'll get full power from a MAC-10 Series saw. The idle governor allows the MAC-10's to idle without stalling or sputtering.

Pick The One That's Right For You!

MAC 1-10: Complete with specially designed bar and chain. Available with 12", 16", 20" and 24" McCulloch guide bars and new long wearing chain for all general purpose cutting jobs.

MAC 2-10: With the same equipment and options as MAC 1-10, plus automatic chain oiling with separate manual system, special spark arrestor and muffler combination, plasticized handle frame for non-slip operation, and rubber insert on the pistol grip. The MAC 2-10 is ideal for the man who wants a lightweight with everything as standard equipment. See your McCulloch dealer now for a demonstration of the new MAC-10 Series. You'll find him in the Yellow Pages, or for a full-color catalog on the MAC-10's and 9 other new McCullochs, write McCulloch Corp., Dept. AA, 6101 W. Century Boulevard, Los Angeles, Calif. 90045.

MCCULLOCH 
CHAIN SAWS • OUTBOARDS

LEADERSHIP THROUGH CREATIVE ENGINEERING

MAC-10 SERIES SAWS ARE THE LIGHTWEIGHT LEADERS IN THE COMPLETE MCCULLOCH LINE OF ELEVEN DEPENDABLE CHAIN SAWS FOR PROFESSIONAL, FARM, CONSTRUCTION AND HOME USE

 **YOU** 
CAN WIN TWICE
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\$100,000
★ ★
TWIN WIN SAW DRAW
SWEEPSTAKES

Over 1200 valuable prizes: 325 new McCulloch chain saws to be awarded in local drawings. Plus a national drawing to award a fantastic jackpot that includes an International Harvester Scout, RCA Victor 2-way radio, Savage rifle, GE 17 transistor radio, 17 foot ski boat with trailer and McCulloch 75 hp motor, and a complete Thermos camping outfit; 2nd prize is a new Pontiac Tempest; other prizes include 75 hp McCulloch outboards, RCA Victor home entertainment centers with color TV, automatic garage door openers by Genie, Polaroid color cameras, Waltham calendar watches, Zebco fishing rods and reels, Utica outdoor barbecues.

See your McCulloch chain saw dealer for the details and see the all new MAC-10 Series chain saws, the new lightweight chain saws that make all other lightweights overweight and out-of-date.

You must enter before Dec. 15, 1965, to be eligible for the Twin Win Saw Draw Sweepstakes.

Doc Mettler Says:

THINK TWICE BEFORE BREEDING

This fall our practice has had an increase in the number of calls to assist Holstein heifers calving, and a larger number of calls to see heifers that have already calved but are down and paralyzed, badly torn, or just plain "worn

out" from calving. In almost every case the heifer would have been able to have the calf more easily if someone had been with her to help at the right moment. But with the number of cows per man on commercial dairy farms today



many animals are not watched as closely as they would have been twenty years ago.

In nearly every such case the owner had decided to breed the Holstein heifer to a Holstein bull after reading one or more articles in farm publications telling him he was not doing a proper job if he "wasted" the first calf of a heifer by breeding her to an Angus or small breed bull. These owners felt guilty about using a non-Holstein bull after reading the advice of men who are sincerely interested in helping advance the breed.

Think About It

This fall I am sure more Holstein heifers will be bred to Holstein bulls than last year. If

you are thinking of changing back to using Holstein bulls for heifers after years of breeding to Angus, please, for the sake of your heifers, think about it a little while and consider a veterinarian's point of view.

The opponents of cross-breeding of heifers certainly present strong points in favor of the Holstein bull. The man who is in the purebred business to sell cattle as well as milk has no reason to use a beef bull. If he is getting a good price for his heifer calves and needs every one that comes along — fine. However, he realizes that he can't let one heifer calve alone and unassisted.

On the other hand, most dairymen pay their farm expenses by the height of the milk on the measuring stick in the tank, needing only enough heifer calves for replacements. For them there is no reason to risk losing a heifer on the chance that she will have a heifer calf, and that this calf from an unproven dam will be better than one from a good old brood cow that we know produces good heifers. The exception, of course, is a heifer from a good transmitting cow family from which good calves could be expected.

If you decide to breed her to a Holstein, do three things. Make sure she is old enough, big enough, but not too fat. Secondly, breed her to a Holstein bull that you know produces small to normal-size calves. Most inseminators can tell you which bulls consistently produce small calves. Perhaps calf size should be listed along with traits of bulls on AB information. Third, when she gets near calving, have her home where you can watch her, and give her help when she needs it.

Let's be practical about this "wasted" first calf. In the first place, there is a fifty-fifty chance the calf will be a bull. In addition, a higher percentage of straight Holstein calves are delivered dead from heifers than Angus or Jersey-Holstein-crossed calves. Besides this, there is one chance in five that this heifer will turn out to be poorer than her dam and you will wish you hadn't started the calf anyway.

Why ask this heifer to grow a big ninety-pound calf and deliver it? If your income comes from milk, why not have her put the feed into her own growth and flesh, and produce that much more milk? And just notice how much quicker a heifer that produces a fifty-pound calf clears up and stops discharging than the one that had to deliver a ninety-pound calf.

Help Nature Along

It is said that Holstein heifers were meant by nature to produce a big Holstein calf. True, but we didn't leave it to nature's own selection to develop a first calf heifer capable of producing sixty pounds or more of milk a day. Let's help nature along a little by breeding most of our heifers to bulls that produce a smaller calf, giving her the chance to develop the size of her birth canal before

(Continued on next page)

Whiter, Safer, More Economical



Lime Crest Barn Calcite

More dairymen use our Barn Calcite because it keeps their floors white and clean-looking so much longer... its uniform granules take hold and keep cows on firm footing even in wet weather — that's why we call it **non-skid**... it's so economical, so easy to use, and it makes better fertilizer, too.

We're so sure you'll like Lime Crest Barn Calcite, we want you to try an 80 lb. bag at our risk. If you're not entirely satisfied, just send us your receipted sales slip... we'll refund the full price you paid!

If Lime Crest Barn Calcite is not available in your area, send us the name of your feed or farm supply dealer... we'll make every effort to see that he's supplied.



LIME CREST
BARN CALCITE

LIMESTONE PRODUCTS CORPORATION OF AMERICA, NEWTON, NEW JERSEY

producing a Holstein calf. We do see troubles with heifers bred to any breed of bull, but if malposition of the fetus does occur, the chance of straightening it without injuring the heifer is greater with the small calves.

The trend in Angus breeding today is toward a larger calf. I would consider using Jersey semen on a heifer with a particularly-narrow rump, or one being bred to calve small and young. I can see no reason to cross-breed any other breeds. In fact, an Angus cross with a Jersey or Guernsey heifer may produce a larger calf.

Let us suppose you have a fifty-cow herd. Aren't ten properly-raised heifer calves each year enough for replacements? Can't the forty mature cows produce ten worthwhile heifer calves? They do in most herds with which I am familiar.

One fallacy in some people's thinking is that if you keep heifers until they are three years old before calving they can deliver a Holstein calf with more ease. Sometimes this is true, but some of the worst difficult births I have been called on are on big three or four-year-old purebred Holsteins that were slow to breed. Though they have a large bone birth canal, they have a tiny soft tissue birth canal surrounded by fat. This brings up another related subject. First-calf heifers can be too fat; in all breeds, both beef and dairy, an over-fat heifer is a difficult subject to help deliver a calf.

A Tough Game

This dairy business is a hard, tough game. There is no room for sentiment when we decide what animals to keep or cull. Yet no matter how tough the business, we can't be without compassion. I have seen far too many Holstein heifers who, though old enough and big enough to calve, were bred to Holstein bulls who had the inherited trait of huge calves. Then these heifers tried to deliver their calves . . . with either an embryo-tomy) cutting the calf up inside the cow), Caesarian (removing the calf through the cow's side), or pulling the calf out by force and paralyzing the heifer as a result. When I see one of these poor suffering heifers my thoughts toward the man who advocates breeding every first-calf heifer to a bull of her own breed are not kind.

Don't forget, an unknown ten-months-old Holstein bull has more chance of producing one-hundred-pound calves than one six years old that you have used before and know produces small-size calves. Statistics from computers proving "genetic superiority" don't ever count the heifers that are dragged up the tailgate of the rendering company truck because they became paralyzed calving with a big Holstein calf.

You are the man who makes the final decision as to the breeding of your heifers. You won't feel nearly as "guilty" about ten half-breed bob calves from good heifers as you will about one genetically-superior dead calf out of a dead or paralyzed heifer.

American Agriculturist, November, 1965

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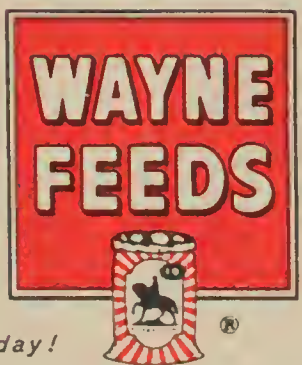
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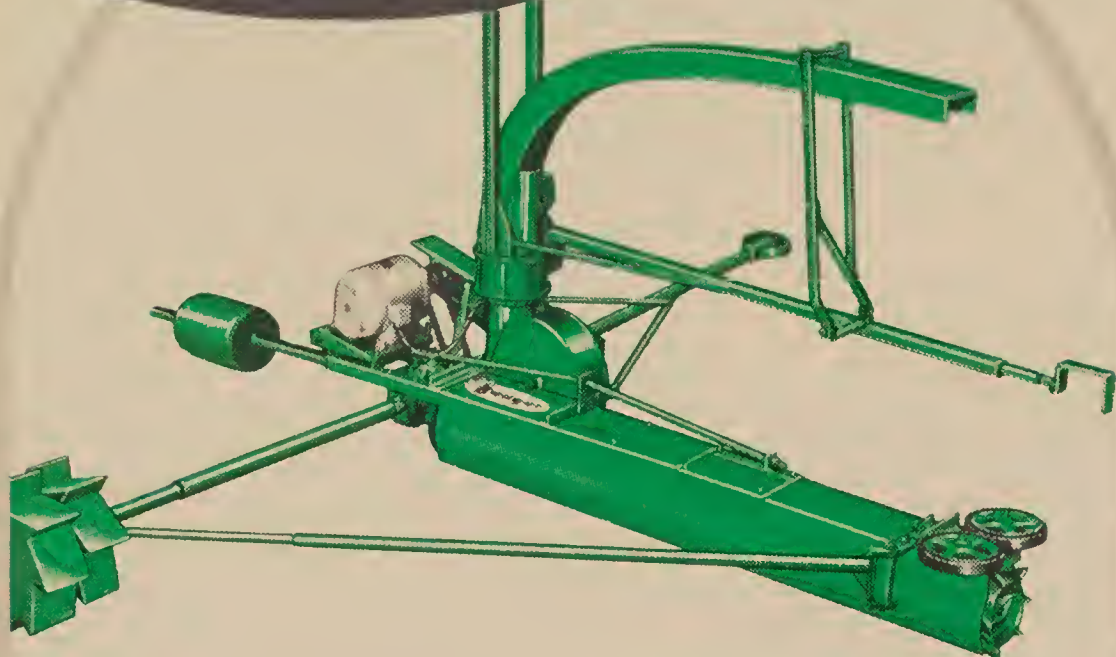
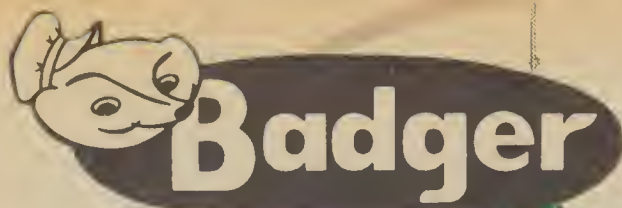


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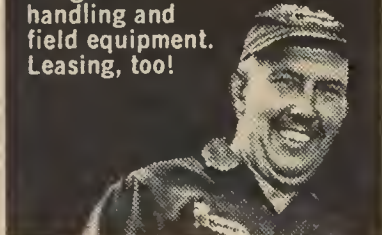
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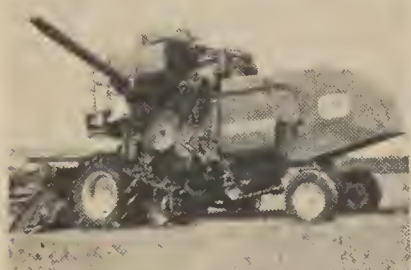
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Fertilizer and water go to each tomato plant through tiny hoses; one is being held at left. Plant roots are in soilless medium inside plastic "rings."

TOMATOES WITHOUT SOIL

by Gordon Conklin

HAVING PROBLEMS with tomatoes because of soil-borne diseases in your greenhouse? Then make up an artificial soil!

The Dickman Brothers (Herman and Carl) at Auburn, New York, are producing greenhouse tomatoes for the second year by a method called "ring culture." The tomato plant is set in a "ring" of plastic and grown in a soilless media mix of peat moss and vermiculite. Perlite, a form of expanded volcanic rock, can also be used for making artificial soils.

Several Kinds

There are several artificial soil formulas that can be used. In fact, Cornell bulletin 1104 entitled "Artificial Soils for Commercial Plant Growing," lists four suggested mixes. Authored by James Boodley and Raymond Sheldrake, Jr., this publication gives details of how to prepare and use this new practice.

Here's the formula for a cubic yard of what's called "Mix A":

Shredded German or Canadian sphagnum peat moss	11 bu.
Number 2 or 4 vermiculite, horticultural grade	11 bu.
Ground limestone, preferably dolomitic	10 lbs.
Superphosphate 20 percent, powdered	1 lb.

Watering

They use the Chapin watering system . . . a tiny hose connecting each "plastic pot" to a larger hose. Fertilizer . . . a 20-20-20 with added manganese, iron, zinc, copper, boron, and molybdenum . . . is added in the water coming through those hoses.

"This method requires close supervision," says Herm, "especially when it comes to watering." After visiting with him, and taking a look at the setup, I had to admit with a sigh that this new method is like all the rest . . . it's not simple, and requires management that is as much or more on the ball as required by the previous way of doing things. Maybe farmers don't lift and lug so much any more, but it's become ever more critical that they be at the right place at the right time with the right decisions concerning the use of the right practice, item or equipment.

Disease Control

Getting back from philosophy to farming, the Dickmans used no disease control materials on greenhouse tomato plants that were grown in the greenhouse. They grew some tomato plants in outdoor starting beds (in the same plastic pots without soil) and did use a "cleanup" fungicide when plants were put in the greenhouse.

They store squash (130 acres
(Continued on page 26)



Herman Dickman admires the crop.

American Agriculturist, November, 1965

CORN SPACING

Visits with representatives of the DeKalb Agricultural Association concerning 1965 test plots reveal that, with conventional practices, a corn plant population of 25,000 per acre looks best in terms of total yield. Planting in rows 18 inches apart shows promise in terms of maximum yield per acre, but planting and harvesting equipment isn't geared to do this now.

Planting corn nine inches between kernels in the row, and in rows 18 inches apart, puts about 38,000 seeds on an acre. Planting with a four-and-a-half inch interval between kernels in rows 36 inches apart also puts about 38,000 kernels on an acre. Observations of these spacings show that corn in rows 18 inches apart will give higher yields in total TDN per acre; ears and stalks are small when stalks are crowded in the 4½ to 36 system.

DeKalb 59 was the company's largest-selling variety in New York State as a whole for 1965, but predictions are that XL307, XL315, and XL325 will be the big guns for 1966.

NEW BARN

One of the largest dairy operations in Wyoming County, New York, is owned by two brothers, Calvin and Avery DeGolyer of Castile. The barn, holding 200 cows in 4 units of 50 cows each, is partly an older remodeled barn, and partly new construction. The cows are kept in free stalls.

The plan is to feed corn silage as the only roughage with concentrate mixed with it and brought to the cows with an automatic feeder. Two silos . . . one 22 ft. x 60 ft. and one 30 x 80 (that's right, 30 feet in diameter and 80 feet tall) . . . hold enough silage to feed the cows for an entire year. The amount of grain added to the silage for each of the four groups is regulated according to the production of the group.

The cows are milked in a double-eight herringbone parlor and the adjacent milk house has one bulk tank with room for a second. The brothers may expand the operation to 300 cows.

BREAK FOR DELMARVA

Going into effect in October were new railroad rates on feed ingredients coming into Delmarva. It is reported by industry officials that these new rates will offer savings of between one and three million dollars per year to the poultry industry of the region.

These new savings are in addition to a million-dollar-a-year rate reduction on corn shipped from the Midwest that took effect a year ago. The new rate adjustments are on shipments of soybean meal, corn gluten meal, alfalfa meal, and other poultry feed ingredients . . . amounting to a reduction of \$3 to \$5 per ton in feed costs.



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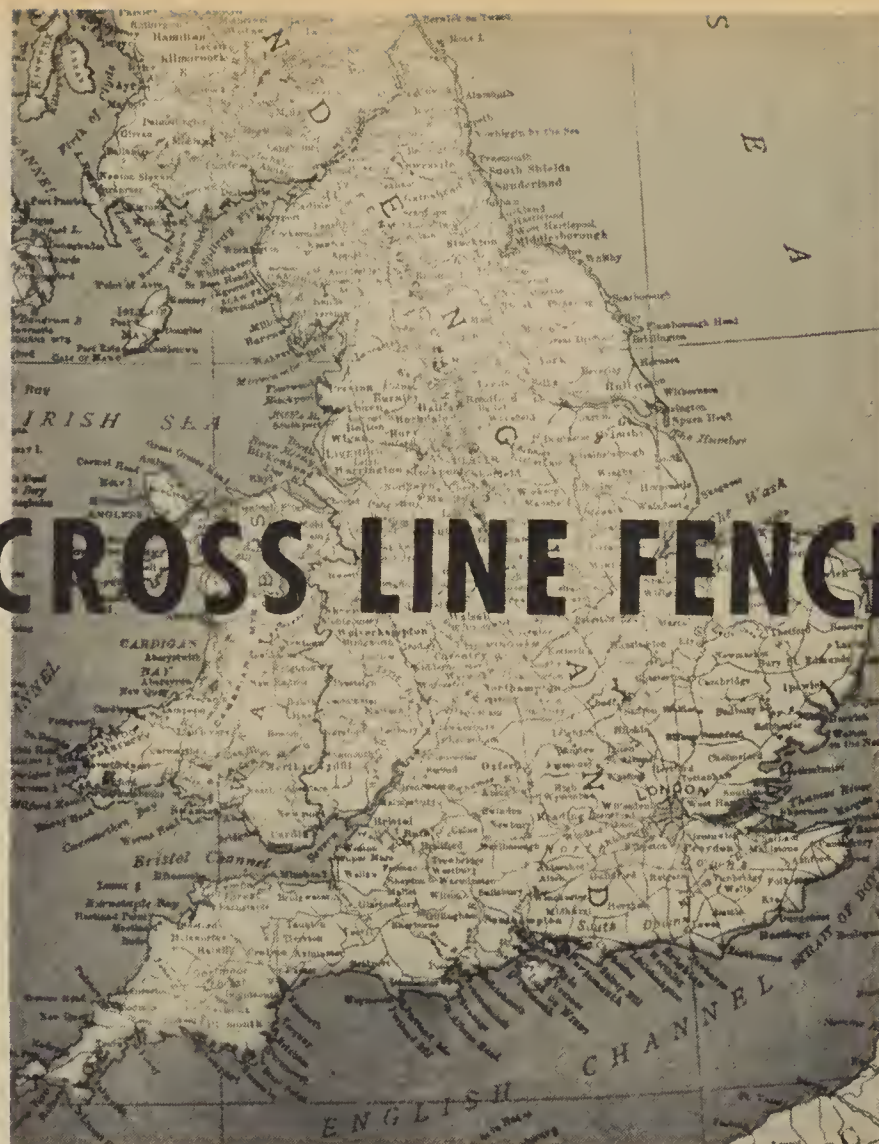
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ACROSS LINE FENCES



by Frank L. De Baugh*

There are farm problems across the
seas, too . . . very similar to ours.

THE GOVERNMENT is in serious trouble with Britain's farmers; the clash is on a subject that is familiar to farmers everywhere. In essence, government and farmers in Britain are in conflict about the sort of living a farmer should be able to enjoy, how much money he should expect from the sale of his produce, how much for his work, how much return for the capital he has employed in his business.

Briefly, the whole bitter business stems from the annual price review for Britain's farmers . . . a sort of special "budget" for British agriculture whereby the government (after talks with farm leaders) sets guaranteed farm support prices for the major commodities.

Unhappy Split

This year, government and farm leaders split primarily on the thorny subject of milk, but they also had their differences on subjects like meat, as well as corn.

The organized farmers say that production costs in the last 12 months have risen by nearly three times as much as the government now intends to raise the guaranteed prices.

There is particular bitterness because, say the farmers, increased costs over 1964 have already wiped out increased incomes secured during that year. There is the complaint that, even without further rises in costs during 1965, the nation's farm incomes will remain virtually at a standstill.

Since 1959, say Britain's farmers in a nationwide protest, normal farm income has risen in real terms by about 11 percent, while net output has risen by 22 percent.

Over several years Britain's dairy farmers have been leaving the industry at the rate of 4,000

a year. There is the fear among the nation's farm leaders that this rate of exodus will be vastly accelerated because of the very small increase in the price of milk permitted the farmers . . . a rise of only one penny per gallon.

Leaders of the National Farmers' Union (no connections with the NFU in the United States) accuse the government of "complete failure" to understand the needs of the farmers . . . or of the consumer. It is charged that the failure to allow more than "a derisory penny" a gallon for milk must mean fewer men producing milk, and that this must mean, sooner or later, less milk for all.

Farm Visits

I have visited with farmers having large farms on the Wolds of East Yorkshire, and with the "little men" of West Yorkshire. Alike, they seem to be genuinely alarmed at what they believe is a series of price review decisions that were dictated out of regard to the nation's immediate economic plight rather than with long-term opportunities in mind.

Minister of Agriculture Fred Peart does not see it that way. He believes that his price review of 1965 is the first step in a constructive long-term approach to farming problems.

Take his attitude on milk. Mr. Peart has granted one penny per gallon; the farmers say this is ridiculous. But it is true that, except for the very generous price review of 1964 (an election year), a penny a gallon is the biggest increase given to Britain's milk producers since the present system of guaranteed prices through an annual review was introduced.

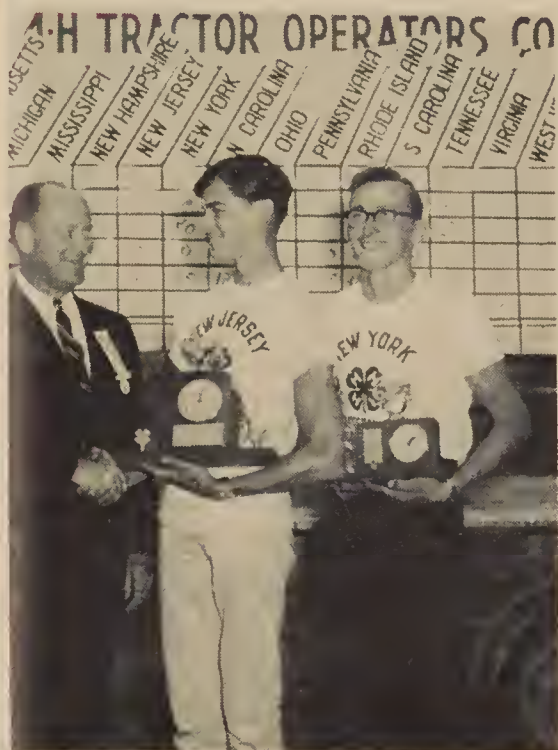
Minister Peart sees the difficulties of the "small" farmer in particular, and sympathizes with his

* Journalist, Bradford, England

(Continued on page 26)

American Agriculturist, November, 1965

News and Views from NEW YORK AND PENNSYLVANIA



David Hitchner (18), Bridgeton, New Jersey, (center) took championship and the Governor's trophy at the recent 15th annual Eastern U. S. 4-H Tractor Operators' Contest. Beside him is William Cichanowicz of Riverhead, New York, a trophy winner. Presenting the trophies is P. V. Troup, regional manager, American Oil Company, Baltimore, Maryland. In addition to the trophy, each winner received an expense-paid trip to the event from American Oil Foundation.

An Invitation — The New York State Rural Safety Council is inviting rural young people, such as members of 4-H, Vocational Agriculture students, Young Co-operators, Grange Youth, and others, to send in 30-second (60 to 75 words) radio announcements on the subject of farm and home safety. The contest runs from September 1 through December 1, and the Award will be made by the Governor at the Agricultural Society Dinner in Albany in January. Entries (no limit to number) should be sent to Professor E. W. Foss, Department of Agricultural Engineering, Riley-Robb Hall, Cornell University, Ithaca, New York 14850.

Good Ideas — Mrs. Janice Waybright, Hershey, Pennsylvania, was presented with a cash award and a Certificate of Appreciation for two ideas adopted by the Pennsylvania Agricultural Stabilization and Conservation Service, designed to improve their services to the public. This was the second award made under "Project Simpler" in Pennsylvania. The project is open to anyone interested in improving the administration of farm programs. Suggestions should be directed to local county ASCS offices.

Resolutions Committee — Seventeen New York farm leaders have been named to the 1965 State Resolutions Committee of the New York Farm Bureau by President William E. Bensley. They are: Chairman, Robert Greig, Red Hook; Howard Baker, Ransomville, vice-chairman; Mrs. Howard Hait, Jefferson

County and Mrs. Gordon Sherman, Essex County; Gordon Brookman, Chautauqua County; Lyman Welch, Monroe County; Andrew Burt, Ontario County; Silas Stimson, Tioga County; Fred Marshall, Madison County; Beriah (Ted) Willson, Oneida County; Robert Patten, St. Lawrence County; Willard Peck, Saratoga County; Alton Neff, Dela-

ware County; Jack A. Gill, Ulster County; Leonard DeLalio, Long Island; Donald Sawyer, Jefferson County; Russell Miller, Wyoming County.

Winning Grange — Spencer Grange No. 1110, Tioga County, will receive a check for \$1,000 in the Community Progress Program sponsored by The National Grange and The Sears-Roebuck Foundation. The award was the result of a two-year civic betterment campaign. One of 10 national finalists, the Spencer Grange will now present its case in competition for a national prize totaling as much as \$10,000.

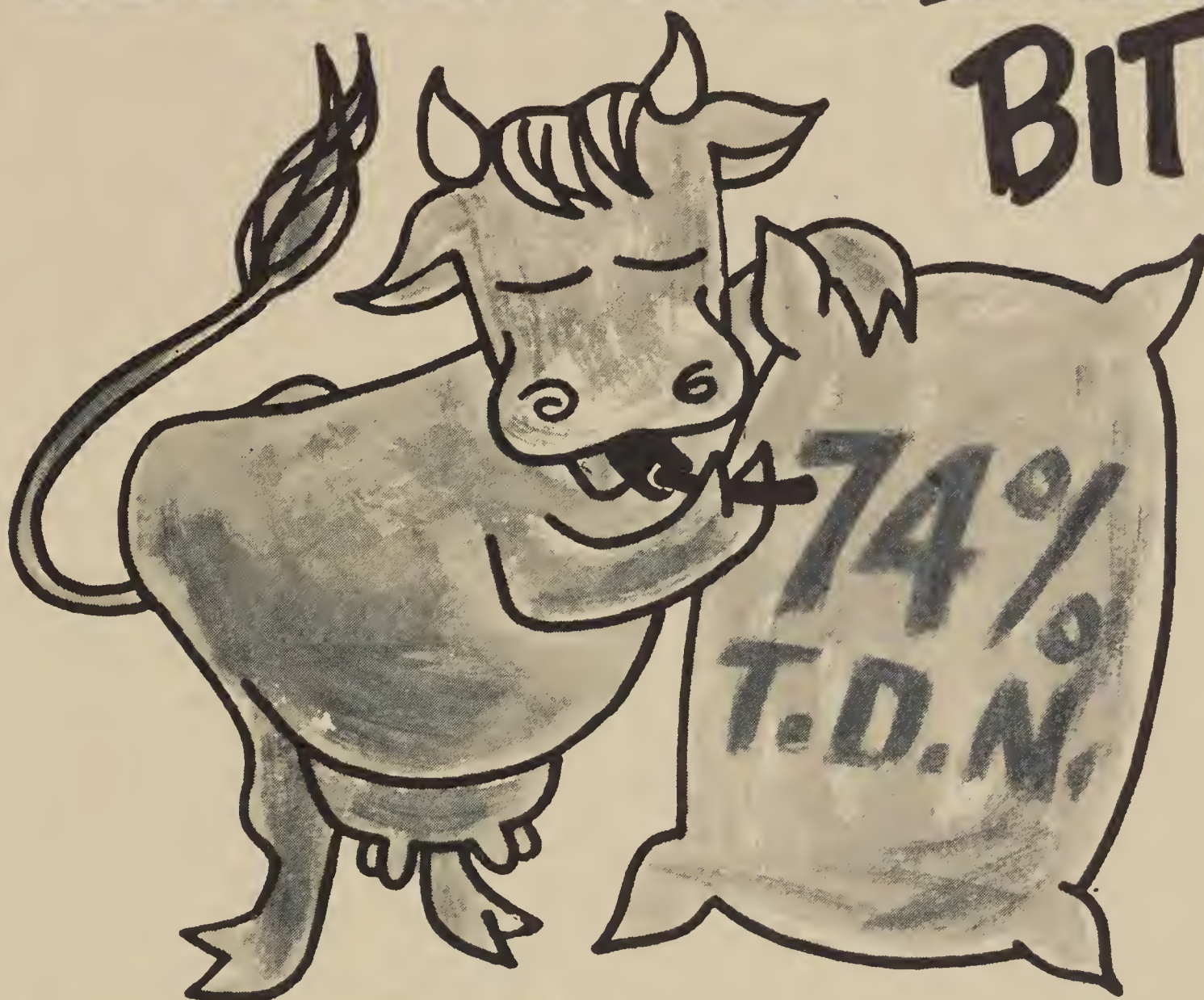
Stream Map — Requests for The Pennsylvania State University's new Stream Map are reaching 400

per day. The map shows over 3,000 each of streams, towns, and elevations above sea level, reports the producer, Professor Emeritus Howard W. Higbee. It is considered ideal for sportsmen, foresters, and workers in land-use planning and watershed associations. It can be purchased for \$1.00 per copy by writing to Maps, Box 6,000, University Park.

Shon-Nah-Nay-Dah — That's how we ought to address New York State Agriculture Commissioner Don Wickham now. Colorful ceremonies during the New York State Exposition saw him adopted as a blood brother of the Iroquois Indians. The translation . . . "Official Over Others . . ."

(Continued on page 31)

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Line fences

(Continued from page 24)

problems in maintaining seven-day-a-week milk output. But he also sees that Britain's milk production was not falling during the late winter and early spring of 1965 . . . it was rising. He has seen, too, that the past reduction in the size of the nation's dairy herd has been checked. In short, he believes there is no danger of a national milk shortage in Britain.

Up and down Britain there are farmers who were expecting to get a price increase for milk six times as high as what they have actually achieved. There is ground for belief, though, that the farming

organizations would have accepted half of that amount.

Future Pressure

It could well be that there will be pressure from the farming bodies of Britain for what is termed a "special price review." If the government accepted this demand, there might well be raised the possibility of an "agreed compromise" . . . three pennies more, not one penny more, for every gallon of milk.

What chances are there that the British Government might agree to this course? I do not believe that there is any chance whatever. I am myself quite convinced, in fact, that the government will not even agree to a special price review

if one should be requested.

Minister Peart believes that, when the dust of controversy has settled, farmers across the nation will recognize that the price review of 1965 does make some far-reaching approaches towards grappling with long-term problems. These problems involve, for example, the hill farmer struggling on his poor upland soil, as well as the "small" farmer trying to make ends meet by working long hours every day of the week.

Time will tell. In the meantime, the bitterest controversy Britain's farming has known in a generation is virtually certain to be followed by an even more-prolonged argument as both sides prepare for the price review of 1965.

Tomatoes

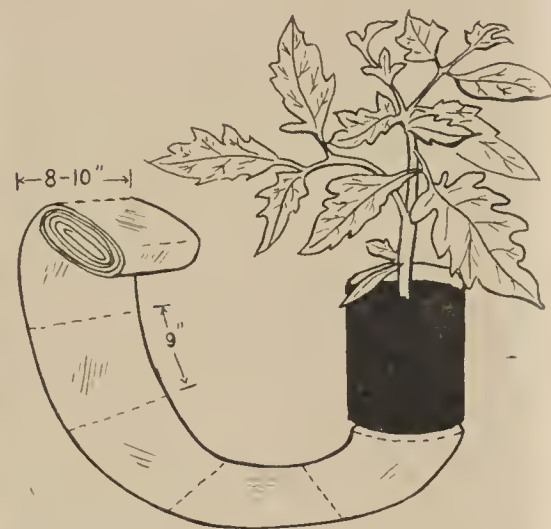
(Continued on page 22)

in '65) in some of the greenhouses, so these houses were cleared of tomatoes when "frost upon the punkin" time rolled around.

Down in Sullivan County near Swan Lake, Herman Reinshagen is also using ring culture for growing "love apples" in the greenhouse. In 1964, he tried 250 plants and sold about seven pounds per plant for 50 cents a pound at his roadstand.

In '65, he had 400 Michigan Ohio Hybrid plants and had excellent yields. He also has a Chapin water system that has eliminated blossom end rot because plants get water when they need it.

Originally a British technique, this method of growing greenhouse tomatoes has been modified by researchers at Cornell University. Its purpose is to provide a sterile growing medium . . . free of fusarium or verticillium wilt, and nematodes . . . without the expense involved in soil sterilization by steam or chemicals.



Plastic "rings" come in rolls up to 2,000 feet long; some perforated for easy tearing at regular intervals as shown here. Simple method for locating points to cut non-perforated rolls is to lay strip along chalk marks made the desired distance apart on floor or workbench.

RUINED FARMHOUSE

Scarlet peonies in the grass,
A ragged cellar hole nearby,
And crumbling chimney testify
That once a little house stood here.
One can only hope somehow
The essence of a home survives
And like these sturdy blossoms, thrives
Transplanted to another site.

— Mary C. Ferris



"You can cut that out now . . . he's going to recover."



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. . . ask us how new Nuffields are better!

Nuffield diesel tractors—quality-built by the famous British Motor Corporation—always were good, hard to improve upon. But new Nuffield models are even better! Eight ways better:

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4. New differential lock operation—with easy, positive pedal action.
5. New drawbar and stabilizers—provide dual hitch points for lower draft links.
6. New instrument panel—with concealed lighting, safety engine stop control.

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8. Modified electrical system—more flexible for use with trailed equipment.

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The Question Box

... Send us your questions — we'll get the answers

Is sawdust harmful when used as a mulch for vegetables or flowers?

No, except that it may temporarily lower plant-available nitrogen. One way to avoid this is to spread a pound of nitrate of soda per square foot before spreading the sawdust. If you prefer ammonium nitrate or urea, use half as much per square foot.

Are fluorescent lights helpful in starting vegetable or flower plants indoors?

Yes, they are excellent, and permit growing good plants under otherwise unfavorable light conditions.

I have a plum tree that blossoms but never produces fruit. Can you tell me why?

The chances are that the tree needs cross-pollinating from another variety... also true of some varieties of other types of fruit. Try cutting branches in bloom from a tree of a different variety. Put them in a pail of water and hang the pail in your tree when it is in bloom. Best answer, of course, is to plan ahead when planting and provide pollination needs.

I am trying to evaluate various methods of heating and wonder if you could tell me the British Thermal Units (BTU) in various sources of energy.

The heat content of selected sources of heat energy is as follows:

1 ton hard coal	26,000,000 BTU
1 gal. No. 2 fuel oil	140,000 "
1 kwhr of electricity	3,413 "
1 pound LP gas	21,600 "

While these values are of interest, the utilization of this energy varies considerably and the following values are more nearly what may be expected with well-designed and maintained equipment:

26,000,000 × 50%	= 13,000,000 BTU
140,000 × 70%	= 98,000 "
3,413 × 100%	= 3,413 "
21,600 × 80%	= 17,280 "

The size of electric service usually needed for a 2 or 3-bedroom home using an electric range and water heater would be 100 ampere service. A small single bedroom house with all-electric equipment could be served with 150 ampere entrance equipment. — C. N. Turner, Dept. of Agr. Eng., Cornell University

I have a flock of hens ten months old that have laid good all summer. But now their toes seem to crack open and bleed; they even pick their own toes right to the bone. Can you advise the cause of this trouble and what I should do about it?

At first I thought this sounded as though your birds had bumble-foot, but this is usually an injury to the underside of the foot caused from jumping from high perches or hitting their foot on rough surfaces. The foot sometimes breaks open and then the birds become very lame.

However, after studying your letter it sounds like one of these

very peculiar situations where a habit is developed because of one injury to a particular bird and the other birds start picking. I have seen one other case exactly the way you describe where the birds were picking at the top of the foot, and in fact picking to such an extent that they were literally injuring the tendons.

There are two or three things that I could suggest... none of which I can guarantee. First of all,

I would look very carefully to see if there is something that the bird is catching the top of her foot on and causing an injury and thereby opening it up so other birds tend to pick at it. This might be a nail sticking up somewhere or a sharp object where the bird stands, or it might be a number of other things.

However, I think this has developed to a point where it has become a habit. We have seen this happen before in flocks to the point where large numbers of the birds were injured. About the only other suggestion that I would have would be to take some of the birds to one of the diagnostic laboratories.

Offhand, I think your treatment with pine tar is probably as good

as most anything, or you might use some of the "no pick" salves which are usually red and have a rather vile taste. I believe if you can break this habit that your trouble will stop. You may find that this is all caused from one particular bird doing all of this picking at that spot, and by watching you may be able to get this bird out of there and the trouble will stop.

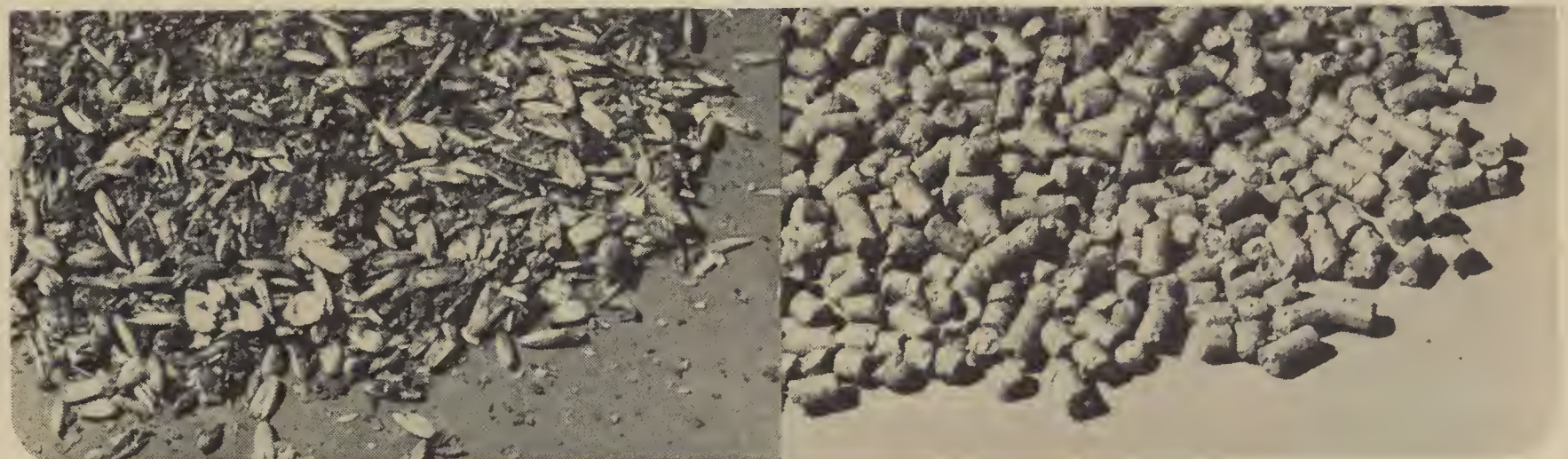
You might also want to check to see if you have too much intense light. Chickens only require one foot candle of light intensity. When intensity is too high we often get cannibalistic tendencies occurring — Charles E. Ostrander, Poultry Husbandry Dept., Cornell University



1. To freestalls or labor saving conventional barns... for more comfortable cows, fewer man hours per cow.

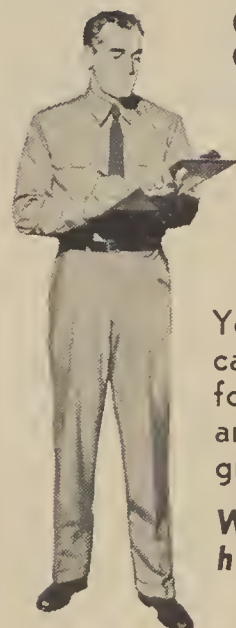
2. To milking parlors... for greater milk sales per man and per man hour, with less effort.

3. To heavier silage or haylage feeding... for more TDN or more Net Energy per acre, harvested and fed mechanically at lower cost.



4. To Beacon high energy milking rations... for increased palatability, good flow characteristics, high milk production and top income over feed cost.

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Your Beacon Advisor can help you plan for more milk per cow and per man — for greater labor income.

Why not call him today?



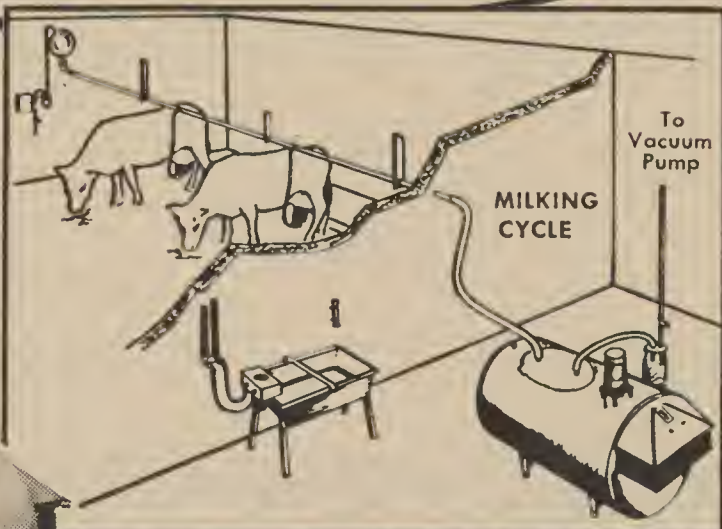
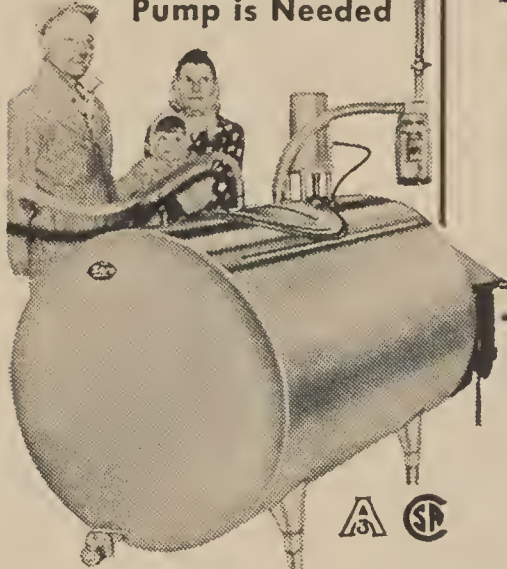
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The picture at upper right shows how easy milking and clean-up can be—when you have this new ZERO SIMPLE-SIFON PIPELINE. It's a *simple, complete, vacuum-operated, cow-to-tank pipeline milking system*—that operates with your present milker units—and the ZERO VACUUM BULK MILK COOLER. The SIMPLE-SIFON costs very little. The ZERO Tank costs less than a can cooler and cans.

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are six propeller-shaped, hinged flails that pulverize hard, crusty snow or ice with hammer blow action. Hinged feature of flails prevent damage if rocks or other unbreakable objects are struck.



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The USS Grouper heads out to sea.

SUBMARINER FOR A DAY

by Jim Hall

PAY ATTENTION to and understand everything said over the squawk-boxes, and don't stand under any overhead hatches!

I learned at least those two things... which must be basic lessons for submariners... during a recent eight-hour day on and under the Atlantic Ocean aboard the USS Grouper.

Five of us, all civilian guests, were helping make the combat information center of the ship even more crowded than usual while being briefed on a myriad of switches, valves, wheels, depth gauges and flashing lights. They were packed so tight around and above us that little space remained for the gyro, engine room signals, auxiliary steering, plotting table, telephones, and our five coffee mugs. Suddenly, Lt. Commander William B. Walker, captain of the sub, was interrupted by the loud speaker.

"Prepare to dive. Clear the bridge."

From then on, with but one obvious difference, it seemed that we were in the middle of a scene such as you've seen on TV and in movies dozens of times.

That horrible diving-alarm

blasted forth. A sailor gently pulled a guest from under the hatch just as 180 pounds of man dropped from 10 feet above without touching a foot to the ladder rungs. Even before the officer of the day straightened his legs after the long drop, a Chief reported, "green board."

Dramatic

Knowing from those two words that every hatch and valve leading to the outside was closed securely, the O.O.D. (who becomes diving officer as soon as he lands in the control room) then proceeded in a matter-of-fact way to give those terse orders that the movie heroes give in such dramatic fashion.

Each word put men to work in various sections of the 312-foot-long ship. At "Dive," men in the motor room switched from diesel engines to battery power. A tinkle on the engine bell from the control officer in the conning room above cut power to one-third ahead; "Flood one," and a button-pusher some place sent tons of sea water into a tank near the nose of the sub. That helped take the bow down first and fast.

At the same time other motors unfolded wing-like planes to horizontal positions at the bow and stern. Men, at wheels that controlled the angle of the planes, adjusted them to make the pressure of our own forward motion through the water drive the bow down even faster.

Going Down

The deck slanted noticeably down toward the bow... enough to skid coffee mugs across the table. It gradually leveled as other tanks were flooded and the plane wheels spun again.

At the desired level (which was an unromantic 58 feet, but still a lot of water as far as I was concerned) there were more commands as the weight of water in the tanks was adjusted to a point so exact that we'd neither rise nor sink. At the same time, some water was being changed between tanks to keep the ship level at that depth.

(Continued on next page)



That's Jim Hall (right) with Commander William B. Foster, training officer of the U.S. Naval Base at New London, Connecticut.

Any depth changes from that point on were made by adjusting the pitch of the planes.

During a later dive (we took four during the day) I had my turn in the conning tower from where the Captain or Executive Officer takes command when underwater. From the second periscope, I had the opportunity to survey what was on the surface all around us and then, by the twist of a handle, search the sky above.

Nuclear Sub

One big thrill as I looked off our starboard beam (I'm really salty) was to see the huge USS George Washington, one of our nuclear ballistic subs, about a quarter mile away speeding toward the Groton, Connecticut, sub base from where we had sailed. She isn't as big as some we have, but is more than three times the tonnage of the Grouper. (I learned later that we have a whole long list of nuclear subs each 26 feet longer than the so-called "super-destroyer" I spent a couple of years on during World War II.)

What sensations did I experience diving and being 58 feet below the surface?

Only two . . . a brief feeling of pressure on my ears when air pressure in the hull was raised for the first minute or two of the dive; and then utter smoothness. A sub is not the most stable craft when it is out of its element on the surface. While we had a quiet sea, there was considerable ground swell, so she did pitch and roll a little.

Fire One!

I mentioned that everything operated about like in the movies but without the tenseness, beads of sweat, and worried expressions. I take part of that back: The crew displayed none of these things, but I felt tension building while standing in the torpedo room listening to orders come down to prepare for firing a dummy torpedo at another sub. With the "fish" ready to go, we heard the quiet orders and the exchanges of information about speed, range, course changes. At times, as we closed on the "enemy," there would be quiet for 40 or 50 seconds.

It was dramatic. I found myself holding my breath, my eyes glued on the gauges.

Well before the officer in the conning tower pushed the "fire" button and we heard the rush of air as the torpedo started out of its tube, I did feel sweat trickling down inside my shirt.

Good Chow

There was no such excitement when the other sub took its turn firing at us. At the time we were eating a steak dinner (with lots of milk) in the wardroom and asking Commander William (Beau) Foster, who is in charge of training for Flotilla Two at the Base, a lot of questions about the Grouper. "Our" sub was built right at Groton and commissioned in 1942, which makes her the oldest U.S. sub in active service today. In her first action, against Jap

carriers off Midway, she stuck her periscope up at 7:51 a.m. just in time for an enemy plane to strafe her with guns and cannon. She dived to become a prime target for bombs and depth charges. Japs rained them near her in groups of 10 to 12 charges until after 11 a.m. Just before noon, while closing on two ships, her periscope was spotted again and more bombs forced her down. She had better luck next time, sinking an 8,000-ton cargo ship.

She went on to sink 23,000 tons of enemy shipping and damage another 51,000 tons at such places as Midway, Saipan, the Western Carolines, Guadalcanal, Iwo Jima and Okinawa, and was awarded 10 battle stars. She also rescued

nine downed aviators during her patrols.

Since the war, she has been refitted many times to carry on research projects that have helped keep our new nuclear-powered underwater fleet so modern, far-ranging and so equipped that we all should sleep better at night.

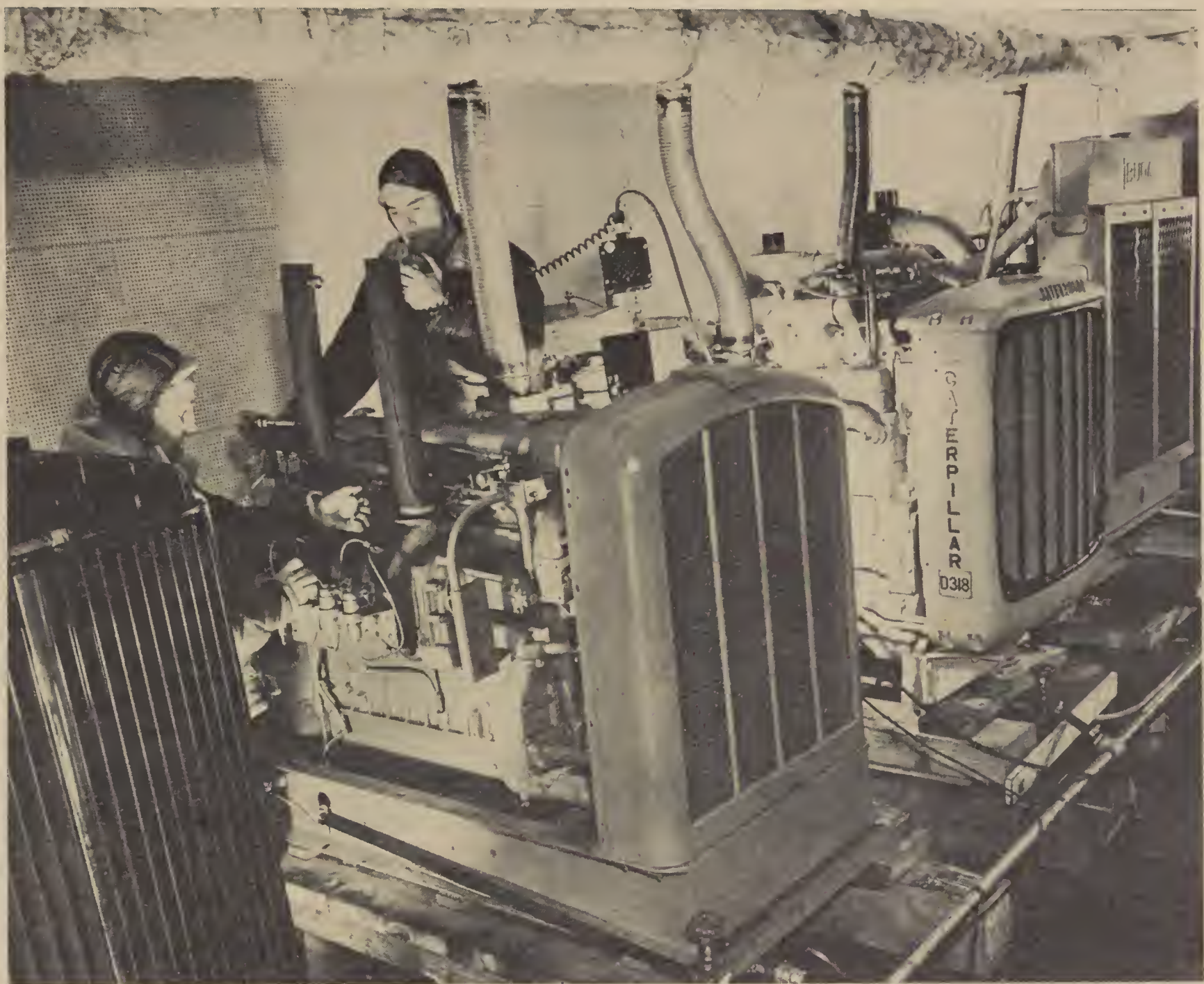
Today's biggest headache to the submariners?

Pleasure craft when relatively close to shore. "Every time I look through a periscope, I half expect to see a big eye staring at me," one officer said. "The professional fishermen are used to us and go on about their business, but when they see us from pleasure craft, people invariably head toward us for a closer look. That's why we

don't dive below periscope depth until well at sea . . . we could pop up under a curious yachtsman!"

We saw this demonstrated as we approached the Thames River at the end of our day. Four times we had to stop engines and twice "full astern" to miss sail — and power-boats whose skippers didn't realize that 2,000 tons slipping through the water at 13 or 14 knots doesn't stop on a dime!

(NOTE to former Navy personnel: Please don't pick on me for referring to subs as "ships." They've always been called "boats" and still are by 99.9% of the sailors. However, the word has been passed by someone with a lot of brass stating that "henceforth they are 'ships.'")



This is your Agway:

tests prove Green Diesel Fuel starts when winter chills other brands

New Agway Green Diesel Fuel has a hot spark that can start your tractor in cold weather when other brands simply won't work. We've proved it in controlled low-temperature laboratories like the one shown above — and on hundreds of farms like yours. Here's how it works:

Without special starting supplements, the critical range for diesel engines is between freezing and about twenty above. Most fuels will start your engine at 32°F. But few can work at 20°F. The hot spark gets cold.

Six years of research and testing—involving a squadron

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When we added our hot spark to Green Diesel Fuel the cetane rating went up. And as this measure of a fuel's firing quality goes up, the starting temperature of your diesel engine comes down. Added cetane also is effective in eliminating misfiring. You get smooth, sure starts with Green Diesel Fuel.

High cetane rating also improves low- and high-load operation, reduces noise, objectionable exhaust fumes, and

possible damage to piston rings and connecting rod bearings.

Agway Green Diesel Fuel has a higher cetane rating than six other leading brands. Everything that goes with a high cetane rating comes in every gallon of this new diesel fuel. And Agway Green Diesel Fuel pours easily in sub-zero temperatures.

Green Diesel Fuel with the hot starting spark for winter is available only at your Agway Petroleum plant. Call today and see for yourself why all diesel fuels are not alike.



AGWAY PETROLEUM SERVICE

THE UPS AND DOWNS OF FARM LIVING

SCIENTISTS TELL us that there is little actual truth in the old saying that lightning never strikes twice in the same place. I can't claim any scientific basis either for a theory which I have that lightning always strikes when it is least expected. By lightning in this case, I mean the many minor or sometimes not so minor crises that plague every family. Why? Why? Why do these things always happen when things look completely rosy and you are sure that the world is your oyster?

You know what I mean, don't

you? It's the day of the Fall Bazaar. You've flown through the housework with the speed and efficiency of a TV commercial. You've cooked madly and left meals for the menfolk. You've prepared the house for weekend guests, and hustled off feeling smart and sassy to do your bit for the good of the world. As the hours go by you wonder why your husband is so late for the supper.

Sure enough! When he does arrive, looking extremely glum, you know at once... lightning has struck! This time the silo has

collapsed, and he has no place to store winter feed for all those cows that you just impoverished yourselves to buy. What do you do? You are too old to cry, and you dare not swear.

Or... your husband goes off on a well-earned weekend trip. He comes home on Sunday night feeling relaxed and optimistic. The weather looks favorable and he is sure everything is in order to get the haying off to a wonderful start Monday. But come Monday, what happens? The hired man quits, and the local dairy says that competition is so great that they can no longer use your milk... your husband may not weep... he may not swear, either, but then again

he may, and can you really blame him?

Or... you have just gotten things organized again after the arrival of a new baby. For the first time in weeks the laundry is washed, dried, and folded before 9 p.m. You feel so rested that you have baked a lemon pie. You have sent the children out to play with hugs instead of shoving them impatiently out the door.

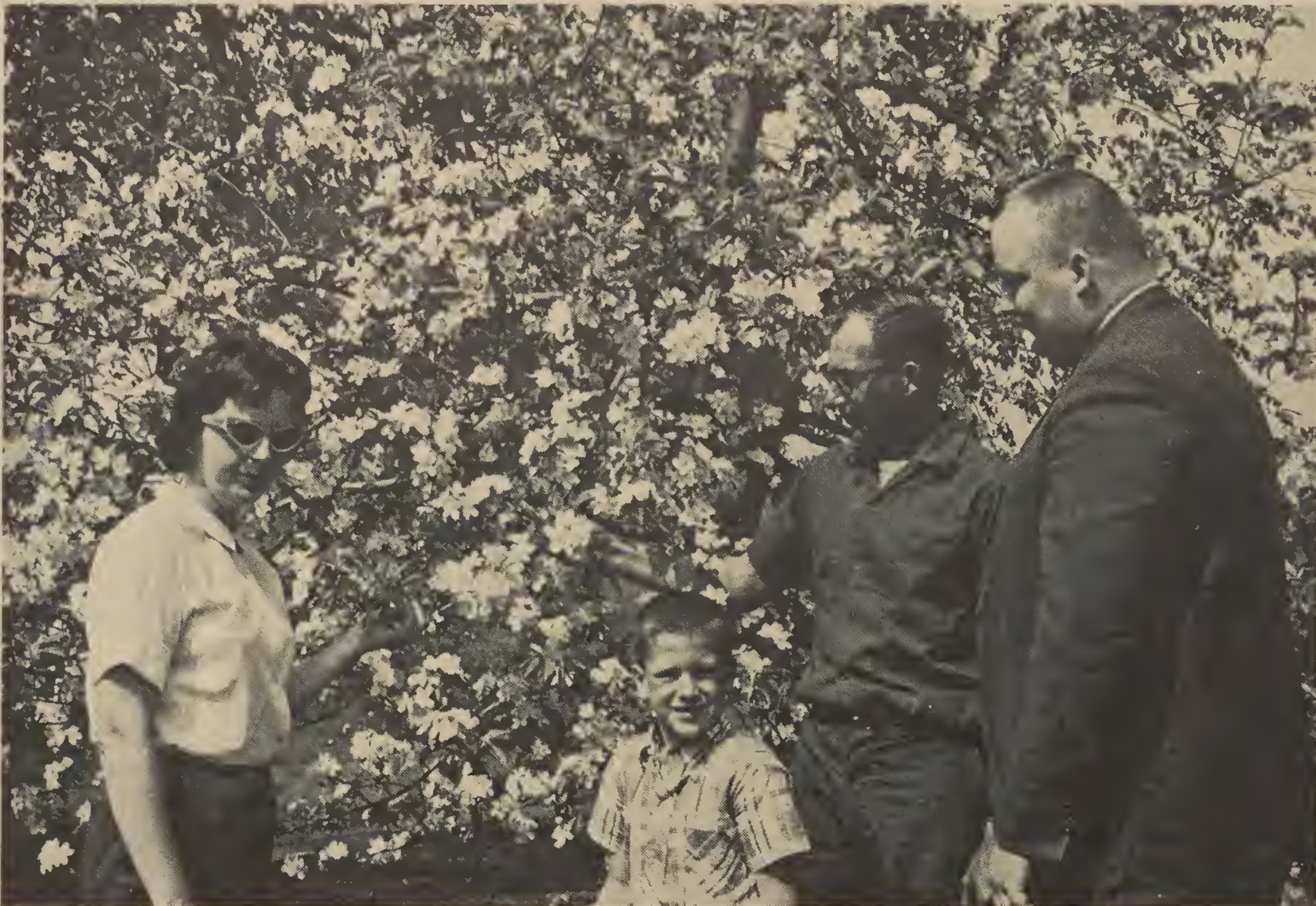
The baby is cooing instead of crying, and everyone is looking forward to a long relaxed evening. Everything is right with the world until... lightning strikes again. One of the boys has slid into the fence and "hurt" his leg. You guessed it! Broken!

Unforeseen

Statistically, this isn't the way things are supposed to happen. Experts tell us that home accidents happen most often when we are tired or hurried or otherwise upset. But these crises aren't really accidents... at least not always. Rather they seem to be sort of bolts from the blue over which we have little control. There should be a moral here somewhere, I think, but somehow it isn't clear.

I refuse to be such a pessimist as to admit that these things happen just to prove that into each life some rain must fall, or that every silver lining means a cloud is nearby. And I certainly don't think we should be afraid to let ourselves feel happy or contented just because we might not know what may happen next.

No, I think it is rather that both high points and crises are part of daily living and we can be better prepared to meet the crises if we can manage to feel that we are on top of the situation at least once in a while. — Dora M. Coates, Mount Morris, New York



Mr. and Mrs. Donald De Marree and son Tom with Don Johnson of Farm Credit office at Sodus. "I wouldn't take \$100 for this Rhode Island Greening apple tree," says Don De Marree.

LAND BANK AND PRODUCTION CREDIT LOANS THROUGH 68 OFFICES

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NEW JERSEY

Bridgeton
Flemington
Freehold
Moorestown
Newton

From a shoestring to a prospering fruit farm...with the help of Farm Credit Service

"We went into this on a shoestring," Don says about his 200-acre fruit farm he and Mrs. De Marree purchased near Lake Ontario in Williamson, New York, three years ago. "We had confidence the farm could be operated successfully, yet it was something for which I needed more cash than I had."

The Farm Credit Associations at Rochester and Sodus had confidence, too. The Federal Land Bank Association and the Production Credit Association loaned the De Marrees the substantial amount of money needed to buy, operate and improve the farm.

Today, the De Marree fruit farm is a thriving, efficient operation. And, Don says, "If it wasn't for Farm Credit Service, I wouldn't be in business. It gives an opportunity to a man that he would not otherwise have. Lending to farmers is their business... and they give a lot of good advice and help."

How about your plans for modernization or expansion? Join the many progressive farmers like Don De Marree who get the money they need to grow and prosper from their own Farm Credit Service. Just call, write or drop in and see your local manager.

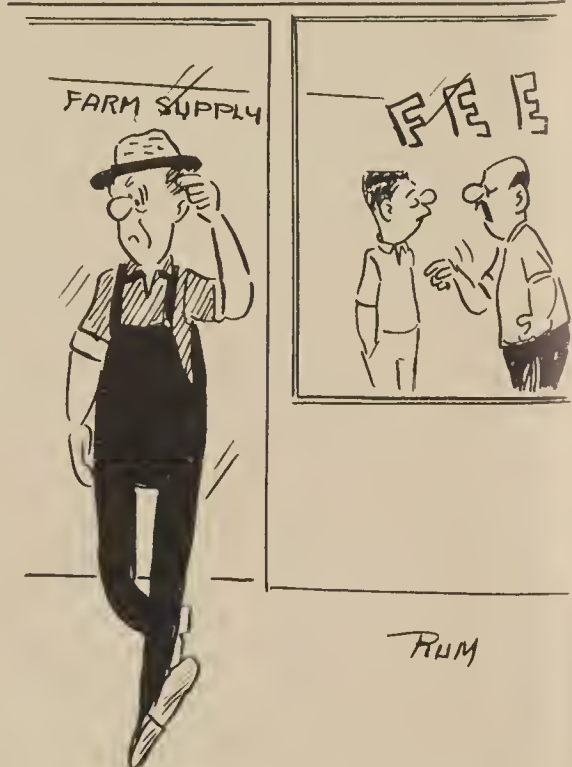


The Farm Credit Banks of Springfield,
310 State Street, Springfield, Mass. 01101

FEDERAL LAND BANK AND
PRODUCTION CREDIT
ASSOCIATIONS

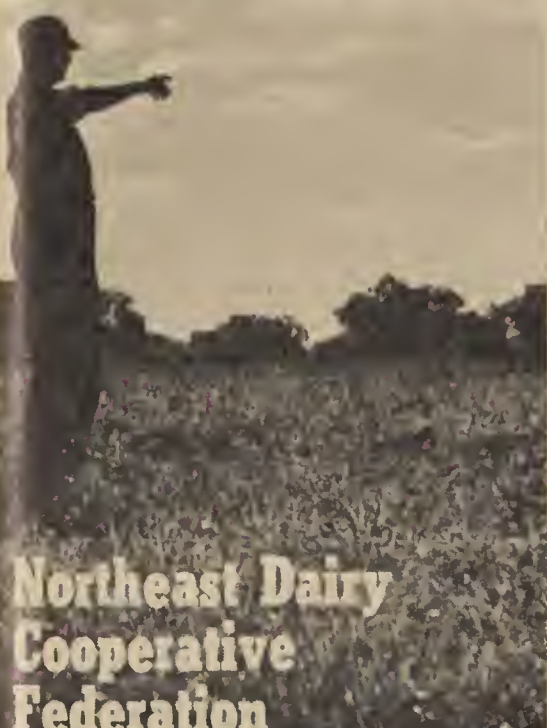
CHUCK CONTROL

Mr. Raymond James of Ballston Spa, New York, tells me that he controls woodchucks on his farm by the use of gasoline fumes. First he soaks an old bran sack thoroughly with gasoline. Then he pushes it with a long stick down into the burrow as far as he can, then closes the burrow with dirt. The fumes do the rest.



"Confound it, Fenwick, when a customer asks for peat moss, you don't say you don't know anyone by that name!"

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Northeast Dairy Cooperative Federation

is leading the way in service to dairy farmers.

Northeast's new expanded marketing program brings dairy farmers new strength and control of their markets.

Join Northeast Federation's new expanded marketing program.

To dairy farmers . . .

1. **IT MEANS** they become part owners of modern plant facilities at Fort Plain and Oneida.
2. **IT MEANS** they are putting the control of their market where it belongs—in their own hands.
3. **IT MEANS** they recognize that efficient marketing is a necessary partner of efficient production.
4. **IT MEANS** that by backing the new expanded facilities of Northeast, farmers are assuring a future market for their product.
5. **IT MEANS** that participants in the program are dairy farmers with confidence in the future of the dairy industry and farmers who want to have a bigger share of that future.

a Northeast Federation Cooperative and take part in this new aggressive program.



Northeast Dairy Cooperative Federation, Inc.

428 S. Warren St.,
Syracuse, N. Y. 13202,
Phone 474-2918

News and views

(Continued from page 25)

Highest A. I. Proved Bull—Zimmerman Alstar Pilot, bred and proved by L. A. and J. A. Zimmerman of Lehighton, Pennsylvania, was purchased recently by American Breeders Service, Inc. He is the Holstein bull with the highest A.I. proof on fat for more than 90 daughters; his 95 daughters average 15,959 pounds of milk and 634 pounds of fat . . . 1,140 pounds of milk above their herdmates, with a difference in fat of 62 pounds.

Goat Association—Annual dues for membership in the New York State Dairy Goat Breeders Association are \$3 per person. Organization president is Ed Dochniak, R. D. 1, Elnora, New York, and the editor of the group's newsletter (called the "Goat Blatter") is Hank Hazeltine, Grafton, New York 12082.

Atomic Power—In its last report, the Empire State Atomic Development Associates report that Niagara Mohawk's 500,000 kilowatt atomic power plant near Oswego is rapidly being built. Another such plant, Consolidated Edison's Indian Point facility on the Hudson River is now in its third year of service. The Federal Power Commission predicts that a total of 70 million kilowatts of atomic power capacity will be installed in the United States by 1980 . . . which will represent about 13 percent of the combined capacity of steam-electric and hydro-electric plants that will then be in service.

Beef Semen—The New York Artificial Breeders Cooperative of Ithaca, New York, has become one of the farmer-owned breeding organizations distributing beef semen from Armour and Company's Beef Cattle Improvement research organization.

Continue Education—The Pennsylvania State University College of Agriculture announces that 42 percent of its 1965 graduating class has gone directly into graduate work. Almost half enrolled in Penn State's Graduate School, the greatest number of whom are studying agricultural education, forest technology, and dairy production. The next largest number are pursuing graduate degrees in agricultural business, agronomy, dairy technology, forestry science, horticulture, general agriculture, and animal industry.

Swine Evaluation—Beacon Feeds is contributing \$200 toward establishment of a New York Swine Evaluation Station at Alfred, New York. The grant is being made to help swine growers in New York State produce high-quality pork at the lowest possible production costs. Involved will be the College of Agriculture at Cornell, the Alfred Agricultural and Technical College, and the New York Swine Improvement Cooperative Association. Tests will be conducted with five or more breeds to discover superior strains for growth rate, feed conversion, and carcass quality.

For the farmer who wants to be able to brag a little about his corn crop



■ Farmers who have been planting Funk's G-Hybrids have grown accustomed to the kind of extra-bushel yields that make it almost a pleasure to run a corn picker. Some of them are even inclined to brag just a bit about the size of the corn crop they brought in this year.

That's not hard to do when you use the right Funk's-G variety, plant it thick, and use ample fertilizer . . . the Funk High Profit Trio program. Men who followed this Funk's-G Program for the first time this year found pleasant surprises in store for them. Your Hoffman Seed Man can tell you how you can set your sights on a higher corn yield in 1966. We'll be glad to send you his name and address. Write today to A. H. Hoffman Seeds, Inc., Landisville (Lancaster Co.), Pa.

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CHRISTMAS



SEALS



THINK TWICE

by Amos Kirby
New Jersey Editor

ANY POULTRYMAN who thinks he has had enough of low egg prices, and has thoughts of throwing in the sponge and quitting, should read two very important reports that are now being widely circulated.

One of them, "The New Jersey Egg Industry, Its Current Status and a Plan for Future Development," published by the State Department of Agriculture, is a "must" for the undecided.

The second, just published by the Extension Service at the College of Agriculture, is a report on what five New Jersey men saw on their recent visit to Georgia, the big competitor of northern producers.

John Bezpa, Extension poultry specialist at the Agricultural College, who edited the report and was a member of the committees that published both reports, has some encouraging words for those who think they are at the end of the road.

"In the opinion of a special committee of New Jersey poultry industry leaders," he says, "the New Jersey poultry industry can

compete with other areas and remain a major egg-producing state."

This optimistic note is based on a visit, in cooperation with the Georgia Extension Service, to a wide range of poultry farms in the Pecan State.

What They Saw

The party consisted of Bob Herman, Freehold, egg processor and poultry producer; Lew Novins, Lakewood, feed manufacturer; Meyer Berkowitz, Norman, egg producer; Bill Huggins, Mullica Hill, State Department of Agriculture; Robert Latimer, farm management specialist; and John Bezpa. They visited plants ranging from 7,000 to 300,000 layers on a single farm. They checked costs, egg prices, management, and other factors. They discovered that management is the key to their success; marketing should be left to others.

The group came home impressed with the competition, but feeling that the outlook for the future is not all black. To the poultryman who is at the cross-

roads, an evening spent with these two reports may provide very convincing evidence about which road to follow.

WHAT'S COOKING?

Edward Oleskie, Extension dairy specialist, has some good food buys for the dairy herd in these hay-short days. Oleskie does not consider himself a home economist... but he is a very good barn economist.

Now that the potato market has reached the bottom of the basement, cull and surplus potatoes are the bargain of the month. When asked for his opinion of potatoes as a feed, Oleskie said: "Fresh potatoes are almost equal to corn silage in feeding value, and they have twice as much nutrient value as wet beet pulp."

At present-day prices, potatoes are an economy dish. (Prices vary, some as low as 20 to 25 cents per hundredweight). Looking for something new? Potato silage can replace corn silage pound for pound in feeding value. And a potato sandwich of one part hay to 4 of potatoes is also in his recommendations.

MEASURING FEED VALUES

A number of New Jersey dairymen are applying a new yardstick to decide what hay and silage is worth. Actually, they are testing

their winter-feeding materials with about the same scientific methods used in testing milk for butterfat.

Frank Wright, associate specialist in dairy science at the College of Agriculture, reports that through the new testing division they are now making available to feeders the TDN level in hay and silage.

Whether buying hay or feeding from the barn, there are great variations in the TDN content. This wide variation has been due to the date and conditions of harvesting... the early-cut being of the highest quality.

Testing Kit

With hay prices again on the upward trend, dairymen who buy and feed hay may have their hay tested. A forage sampling kit may be secured from most county agricultural agents, and a \$5 fee will bring an analysis of the value of the hay. County agricultural agent Fred Lorenzo, Belvidere, is one of the local Extension men urging dairymen to have their hay supplies tested. If butterfat content is important in pricing milk, a hay test is equally important in buying and feeding hay and silage.



On the Rigolizzo Farm near Berlin, New Jersey, they are firm believers in rayon straps to support the peach trees. The picture shows how a lower limb is supported from a strong higher limb at a point as close as possible to a central leader.

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You'll farm better **ELECTRICALLY!**



Our man will help you plan!

HERE AND THERE

Another new crop for New Jersey. It is an old crop, really, under a new name... Tschermak barley.

It was planted in 1964 on an experimental basis for sale to a Newark brewery. Last fall 235 acres were planted; this year the gate is wide open! Only limit will be the amount of seed available. Results are excellent... Ernest Buckley, Alloway, reports yields fair to good; he harvested 85 bushels per acre.

A letter from Ivan Crouse, county agricultural agent, Salem County, says that 235 acres (allowing for army worm injury and other problems), resulted in 6,000 bushels for the buyer and 2,000 for seed, which was used in planting crop this fall. The thinking is that as long as people desire one beverage or another, there may always be a market for Tschermak barley.

American Agriculturist, November, 1965



cut her feed cost with Agway's P.F.P.

Agway's Profit Feeding Plan for calves is based on the economic advantages of feeding a good milk replacer.

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Ask your Agway man about the Profit Feeding Plan for calves today. P.F.P. can get your calves started right—and with real economy.



**DAIRY FEEDS
& SERVICES**

Food For The Spirit



by Robert Clingan

Thanksgiving is upon us. Our thoughts turn to family gatherings, sumptuous home feasts replete with turkey, pumpkin pies, and all the trimmings. Perhaps the afternoon will be spent watching a football game, either in the stands or on a television screen.

Perhaps we will direct our thoughts to the original purpose of the day . . . to give thanks to God for the bounties of the harvest, the free institutions of our land, and try to enter into the heritage of the Pilgrim Fathers. We will remind ourselves that they sought religious liberty in a new land at great cost to themselves. Amid personal loss and great hardship they found it within themselves to give thanks to God for a good harvest, improved prospects for success of their venture, and the survival of liberty on this continent.

We have so much more to inspire our thankfulness than they ever had. Despite Civil Rights clashes, ours is still a democratic heritage; despite erratic climatic changes, hurricanes, floods and drouth, nature has proved dependable and bountiful in that section of the North American Continent marked by the boundaries of our beloved land. Man and nature, science and resources, have combined to create a standard of living that is the envy of the rest of the world.

Although we may be troubled by some new developments in our foreign policy and our position in the world . . . by the fact that our soldiers are dying each day in Vietnam . . . we have been spared a general war and the complete destruction of most of mankind possible with the nuclear weapons of today. We are thankful that the good sense of the leaders of the nations have kept nuclear weapons from being used, and that brush fire wars have remained that and no more.

The precarious and erratic patterns of a world neither at peace nor at war have continued. The alternative possibility . . . of an entire world at war and the arsenal of radiation-producing weapons unleashed . . . is unthinkable. Life goes on for most of mankind; efforts for peace are being made (including a visit from the Pontiff of the Catholic Church to the United Nations) and for all this we are most grateful.

A grateful people fully and truly entering into the heritage of the Pilgrim Fathers will direct their gratitude to God Almighty, creator of the world, source of life, "giver of every good and perfect gift," to quote the Apostle Paul. Nothing less than a prayer of thanksgiving to God will satisfy our inner selves or be appropriate to our situation. In the words of the ancient hymn and doxology: "Praise God from whom all blessings flow; praise Him all creatures here below . . ."

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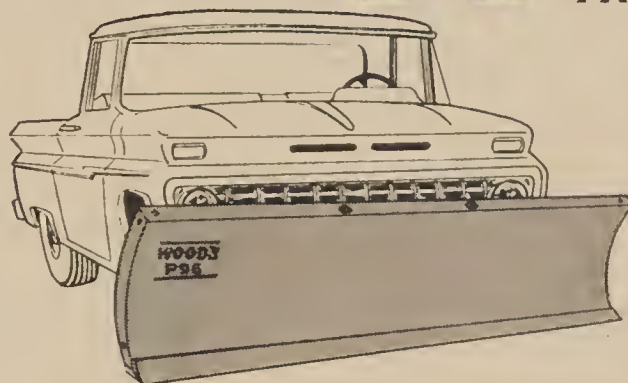
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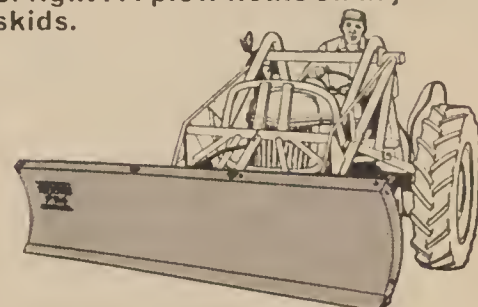
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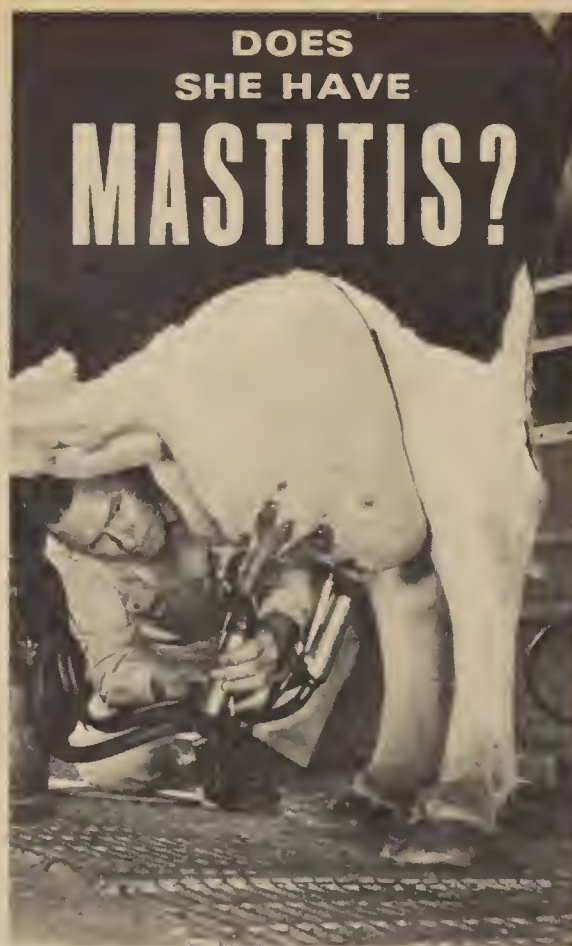


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—a two fisted mastitis fighter. It fights inflammation as it fights infection and, containing a special anti-staph. agent, knocks out the hard to hit hemolytic Staphylococcus infection as well. It's nonirritating. Comes in easy-to-use, one-shot treatment syringe.

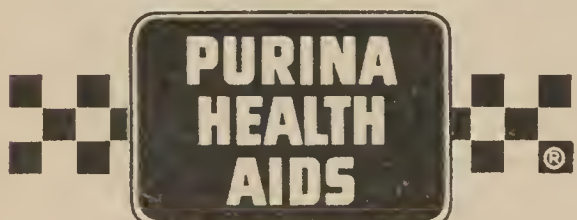
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JOIN OUR SOUTHWEST HOLIDAY January 16 — February 6

WE ARE HAPPY to announce our first tour for 1966, a wonderful three-week vacation to California and the Southwest. From the moment we leave until our return, every moment will be packed with thrills and adventure. Here is a brief summary of the itinerary we offer you in cooperation with the Travel Service Bureau of Needham, Massachusetts.

ALL ABOARD. Traveling to Chicago by rail or air, whichever we prefer, we'll board our pullman on January 16 for the start of a carefree vacation in sunny climes. We'll greet old friends and make new acquaintances while we travel south into warmer weather.

CARLSBAD CAVERNS. At Clovis, New Mexico, we change to a bus for an excursion to fantastic Carlsbad Caverns, the largest and most spectacular underground wonder in the world. This is a visit we'll long remember.

SANTA FE. Terminus of the old Santa Fe Trail and oldest capital in the United States, being founded about 1610 by the Spaniards. We spend a day here and in Albuquerque, another very old city.

LAS VEGAS. From here we make an excursion to Hoover Dam and the Lake Mead Recreational Area where a government guide will explain the operation of the dam and power station. Our stay will also include the Folies Bergere dinner and show at the Flamingo Hotel.

DEATH VALLEY. We arrive in California and spend two nights at Furnace Creek Inn, a favorite spot with Southwest travelers. In Death Valley we find the lowest point in the Western Hemisphere — 280 feet below sea level.

TIJUANA. Continuing to San Diego in southernmost California, we take a side trip to Tijuana, Mexico. The few hours spent in this colorful city will whet our appetites to return someday and really visit our neighbor, South of the Border.

HOLLYWOOD. On our way to the movie capital of the world, we will visit San Juan Capistrano and its famous Mission, also the magic kingdom of Disneyland. In Hollywood, we'll see many of its famous sights including Forest Lawn and Farmers' Market.

SAN FRANCISCO. We travel northward along the old Coast Mission Trail to Santa Barbara and Monterey, and then take the famous Seventeen Mile Drive along the Peninsula. Sightseeing in San Francisco will include Golden Gate Park, Seal Rocks and the Cliff House, as well as the other many attractions of this wonderful city.

YOSEMITE. Two nights spent in magnificent Yosemite Valley will give us ample time to see the beautiful waterfalls and massive rock formations in this famous National Park. The scenery here is truly breathtaking.

GRAND CANYON. Whether or not you have visited this awesome and magnificent National Park before, you will enjoy every mile of the sightseeing drives. And don't forget to bring your cameras, for here is a photographer's paradise.

HOMEWARD BOUND. Our return trip across the greater plains of the western states gives us a chance to reflect on the marvelous sights and adventures this tour has brought us.

Below you will find a coupon to fill out and send in for your free copy of the printed itinerary. This will give you information about prices and many other details you may wish to know.

Also, check the coupon if you'd like a folder describing our Caribbean Cruise aboard the Queen of Bermuda, which we told you about last month. The dates for the cruise are February 22 to March 8, and we will sail from Port Everglades, Florida.

Space on both tours is limited, so don't delay in mailing the coupon. Make up your mind right now to come along with us on one of these wonderful winter vacations. We promise you one of the most enjoyable traveling experiences of your life!

Gordon Conklin, Editor
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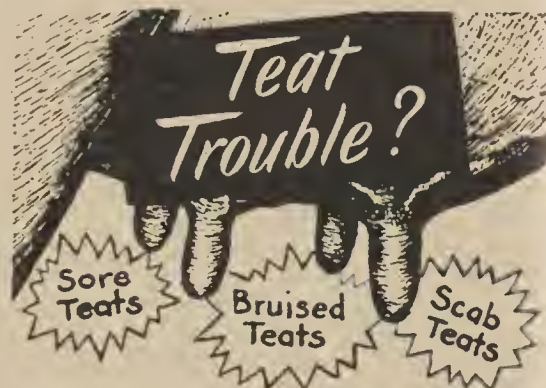
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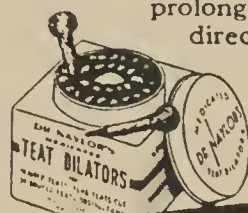
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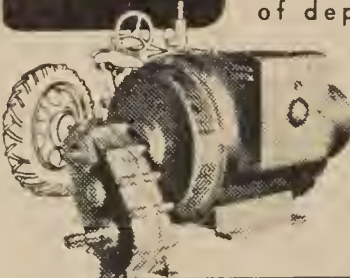
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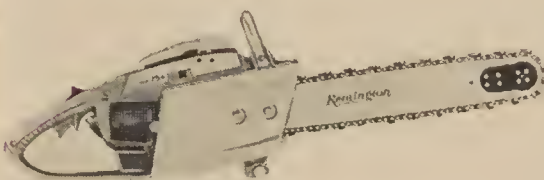
The "Jiffy" Silo Unloader, manufactured by Chapman Metal Fabricators, Palmyra, New York, is a high-capacity unloader featuring rugged construction, easy maintenance and simplicity of operation. A basic machine extends to fit 12 to 20 ft. silos. Only 4 bolts need be removed to dismantle, enabling the unloader to be transferred from one silo to another in less than one-half day. It handles all types of silage, including flail-cut grass. No winches, cables or tripods are needed, although a cable may be used if desired. An illustrated descriptive folder is available from the manufacturer on request.

The Oliver Corporation of Chicago, Illinois, recently introduced hydraulic-powered front-wheel drive on tractors. Designed to increase tractor pull-power where traction conditions are less than ideal, the hydraulic pump and motor combination eliminates the front axle and differential housing necessary in conventional mechanical 4-wheel drives. This arrangement maintains high under-tractor clearance and minimum turning radius, and permits the use of adjustable-width front axles desirable in row crop work.

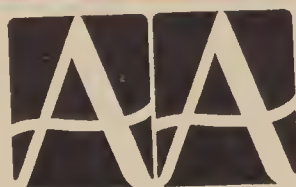
Massey-Ferguson has purchased the former Solar Aircraft plant from the Iowa State University Foundation. The company will move its executive offices from Detroit to Des Moines.

After renovation, the 590,000 square foot factory will become MF's North American Implement Plant. When in full production the plant will assemble most of the farm implements sold by Massey-Ferguson in North America.

The SUPER 754, a new, economical, compact chain saw, has just been introduced to the 1965-66 Remington chain saw line. It has a large 5.4 cubic inch engine with all roller bearing design and an exceptionally high power per pound ratio. Finger tip controls, which include ignition switch, choke, trigger lock and chain oiler are grouped for ease of operation. For convenience, carburetor and throttle adjustments are located top side.



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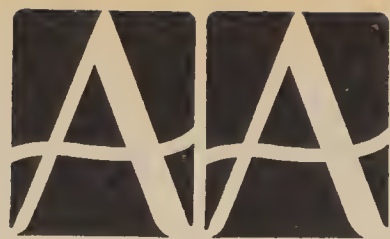
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FARM DOLLAR GUIDE

ANNUAL PHYSICAL for dairy herds in New York is thing of the past. Substitute is Modified Whiteside Test, to be performed monthly until there are three consecutive negative tests. After that to be quarterly unless get positive test (2+ or higher), in which case monthly again. If reaction of 2+ or higher, dairyman will be notified to check herd. Herd will be re-checked within 72 hours; if reaction still above maximum allowed, a veterinarian must be called to help with problem. If the problem persists beyond this, it will be compulsory for dairy to be enrolled in a mastitis control program acceptable to New York State and New York City boards of health.

MWT is a test for leucocytes (white blood cells) and is not specific for mastitis organisms. Most common cause of positive reaction is mastitis, but can also result from injury to udder or other non-bacterial causes. New system will generally be more economical for dairymen (elimination of vet bill for physical), but will be rough on farmers with problem herds that have constant udder flareup problems ... checked 4 or more times a year instead of once.

MECHANICAL APPLE HARVESTER being developed by Cornell University researchers was given a field trial this season. It involves a tree-shaking device and catching frame like that used to harvest cherries ... the catching frame modified to prevent bruising of apples. Thus far, applesauce and slices processed from mechanically-harvested apples have met high standards, and the quality of apples picked mechanically was comparable to that of hand-picked ones. Machine can harvest 150 to 200 bushels per hour.

NO FALL SIGNUP is planned for the 1966 Wheat Program. Legislation is under consideration for voluntary wheat certificate and a feed grain program. If authorized, signups under both programs will be held next spring. Meantime, farm wheat allotments have been determined under permanent legislation and have been mailed to producers.

IMPORTANT PART of new farm bill is Cropland Adjustment Program. USDA aims to take 8 million acres a year out of food production for the next 5 years. Signup period is expected soon, maybe starting in November. Compared to old "Soil Bank," new program is expected to take more producing acres out of production.

Meanwhile, some folks are worrying about an eventual food shortage, while planning for U. S. farmers to feed a much larger part of the underdeveloped world.

IF ANY PART OF YOUR LAND is being taken for a road or other purposes, it's good procedure to hire a competent appraiser to estimate what you should be paid. Then wait for an offer rather than set a price. There is considerable evidence that a lot of landowners accept prices that are too low for land taken for public improvements.

A SEPTEMBER 1 USDA SURVEY indicates that fewer pigs were being farrowed in 10 Corn Belt states in September to November than were farrowed last year, and about the same number as last year will be farrowed in December to February.

HORSE HEALTH bulletin will be coming out soon at Cornell University's College of Agriculture, reports Dr. Bruce Haynes, recently-appointed Extension veterinarian. Order through Mailing Room, Stone Hall, Cornell University, Ithaca, New York 14850.

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CHECK YOUR PUMPS. According to some dairy authorities, the harmful effects of wornout vacuum pumps still used in milking systems are eating into dairy profits, cutting down milking efficiency, and taking a toll in herd health. Next to inflations, they say, vacuum pumps are the item in the system most in need of replacement.

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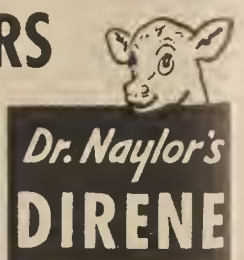
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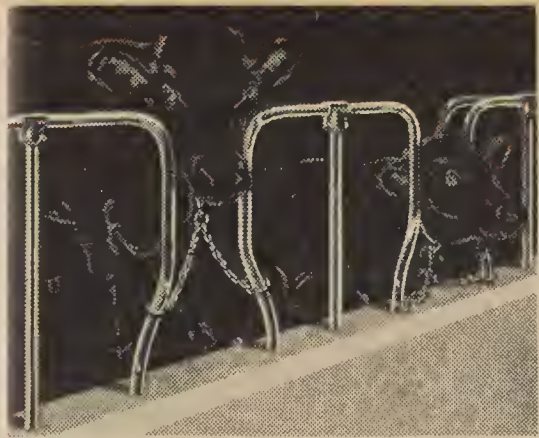
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Nov. 8-9 - Delaware Farm Bureau Annual Meeting, Dover.

Nov. 8-10 - New York Farm Bureau Annual Meeting, Rochester.

Nov. 8-10 - Pennsylvania Farm Bureau Annual Meeting, York.

Nov. 8-10 - New Hampshire Farm Bureau Annual Meeting, Concord.

Nov. 9-10 - Connecticut Farm Bureau Annual Meeting, Hartford.

Nov. 11 - Rhode Island Farm Bureau Annual Meeting, Providence.

Nov. 12-20 - Royal Winter Fair, Toronto, Canada.

Nov. 13 - New York State Beef Feeder Calf Sale, Fairgrounds, Pike, New York.

Nov. 13-18 - Eastern National Livestock Show, Timonium, Maryland.

Nov. 16-17 - Massachusetts Farm Bureau Federation Annual Meeting, Holiday Inn, Lenox, Massachusetts.

Nov. 16-17 - New Jersey Farm Bureau Annual Convention, IvyStone Inn, Pennsauken, New Jersey.

Nov. 19-25 - National Farm-City Week.

Nov. 20 - Fourth Annual Stockholders Meeting, Pro-Fac Cooperative, Inc., High School, Batavia, New York.

Nov. 26-Dec. 4 - International Livestock Exposition, Chicago, Illinois.

Nov. 28-Dec. 2 - National 4-H Club Congress, Conrad Hilton Hotel, Chicago, Illinois.

Dec. 2-4 - 11th Annual 4-H Dairy Conference, held in conjunction with International Dairy Show; headquarters, Conrad Hilton Hotel, Chicago, Illinois.

Dec. 10 - Northeast Holstein-Friesian Regional Planning Conference, Springfield, Massachusetts.

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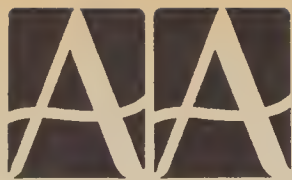
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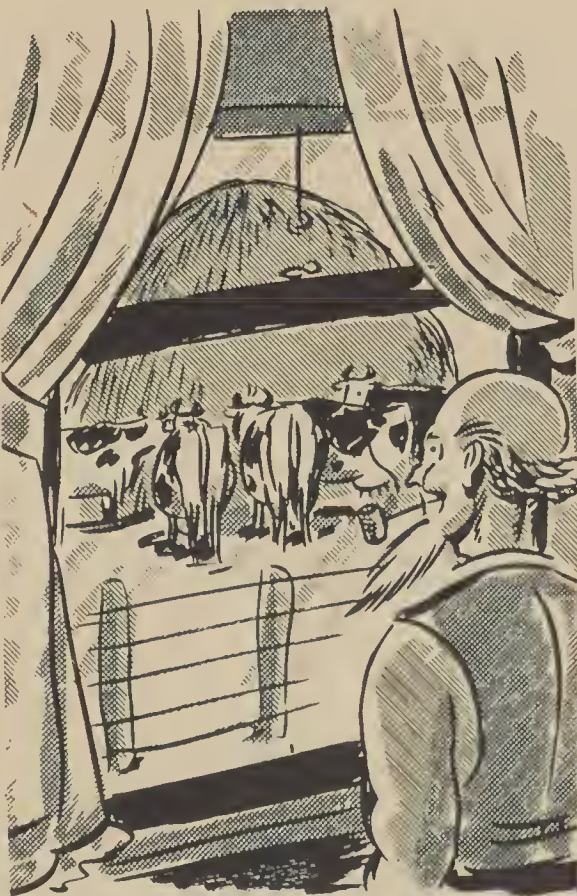
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The Song of the Lazy Farmer

The smell of fall is in the air, it wipes away 'most ev'ry care 'cause it foretells that soon there'll be a winter-time respite for me. Each cropping season any more seems like it is a bigger chore, the summers now are longer than when I was a much younger man; the days seem like they're never through, the sun bears down much harder, too. Despite machines that we've got now, it seems more work to plant and plow; my back and legs get stiff so soon, most days I'd like to quit at noon and let Mirandy work instead while I spend half a day in bed.

Now that November's finally here, we're on the home stretch of the year; the mow and bins are filled with feed, the straw's stacked high for winter need; there's still some harvesting to do and then the season will be through. So soon I'll start the winter scheme which through the summer's been my dream: Each morning I will sleep 'til eight, bounce out of bed just feeling great; then after breakfast take a snooze or go to town and trade some news; then eat some more and nap awhile, arising



with a rested smile to tell Mirandy Jane that she should start the evening chores, by gee.

FAITH FOR A NEW AGE

Back in 1943, a young Marine stationed on Guadalcanal, lonely and battle-weary, wrote a letter to his family asking that they read the Bible "with him" . . . the same passage each day. In that way, he said, he would again feel part of the family group, although separated from them by thousands of miles.

The Marine's mother telephoned the American Bible Society and told an official about the letter from her son. The Society, believing that other servicemen might want to make the same arrangement with their loved ones, printed a list of Scriptural passages and distributed them in the states and

to armed forces chaplains overseas.

Each year, from Thanksgiving to Christmas, millions of people read identical passages from the Scriptures as they participate in Worldwide Bible Reading. This year, the twenty-second anniversary of the start of the program, additional millions are expected to take part.

The suggested verses are printed on bookmarks and the high point of the observance is the annual reading of the Christmas Story on Christmas Eve. Single copies of both the bookmark and a booklet containing the Christmas Story are sent without charge to individuals requesting them from the American Bible Society, 450 Park Avenue, New York, N.Y. 10022.

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414 Fat	552 Fat

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"Wirthmore feeds have a very high degree of palatability, and I can always depend on my Holsteins eating every ounce. This is important for all cows in order to maintain high levels of production. Wirthmore service is hard to beat, too," says Ross.

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Happy Thanksgiving 1965

by Alberta D. Shackelton

THANKSGIVING IS our only truly American holiday, and traditional foods remain favorites year after year. Turkey, cranberries, and pumpkin in various forms are sure to appear on tables from coast to coast, as families gather in thankfulness for our many blessings.

The Thanksgiving menu given below features these foods for your 1965 fall feast. Recipes are given for the starred items.

THANKSGIVING DINNER MENU

Citrus-Ginger Ale Cup. (Grapefruit and orange sections in glass sherbet cups. Cover with ginger ale and garnish with cherry or green mint jelly at serving time.)

Roast Turkey with Double Stuffing.* (Plump, golden bird on your choicest large platter, colorfully garnished as desired. Use plain or nut stuffing in neck cavity and oyster stuffing in body cavity.)

Giblet Gravy. (Smooth rich brown, and with plenty of giblets.)

Fluffy Whipped Potatoes

Braised Carrot and Celery Slices with Mushrooms*

Brussels Sprouts Amandine*

Cranberry Ice.* (Serve in low glass punch cups with main course.)

Brown-and-Serve Crescent Rolls

Relishes. (Plate of celery sticks, pickles, radish roses, flowerets of cauliflower, black and green olives.)

Dessert Tray. (Large tray with footed round plate in center holding cut Mince Pie* or Raisin Chess Pie* and surrounded by whipped cream-topped Pumpkin Tarts, Tokay and green grape clusters, tangerines, cheese wedges, mixed nuts in shell, and after dinner mints. Garnish tray with ivy leaves.)

DOUBLE STUFFING

- 4 quarts bread cubes
- 1 quart diced celery
- 1 cup finely chopped onion (if desired)
- 3/4 to 1 cup butter
- 1 tablespoon salt
- 2 teaspoons poultry seasoning (if desired)
- 1 cup coarsely cut parsley

Cook celery and onions in butter over low heat, stirring occasionally until onion is tender but not browned. Combine bread cubes, celery, onions, seasonings, and parsley; toss lightly to blend. If you like a moist dressing, add 1 to 2 cups liquid, remembering that dressing will become somewhat moist as bird roasts.

Use 1/4 to 1/3 of the dressing in neck cavity. For nut stuffing in neck, add about 1 cup chopped nuts, such as pecans or walnuts, or chestnuts which have been boiled and chopped. To remainder



A beautiful, golden-brown turkey with oyster stuffing will be the highlight of your Thanksgiving dinner.

Photo: Alcoa Wrap

of stuffing, add 2 or more cups of coarsely chopped, cooked oysters.

BRAISED CARROTS AND CELERY WITH MUSHROOMS

- 4 cups sliced carrots
- 4 cups sliced celery
- 1/3 cup butter
- 4 tablespoons water
- 1 pound sliced mushrooms OR
- 1 large can sliced mushrooms, sauteed

Cut carrots and outside celery stalks Oriental fashion (diagonally into thin slices). Place butter in a skillet with tight fitting cover. Add carrots, celery slices, and water; sprinkle with salt and pepper. Cover tightly, bring to boil, reduce heat and simmer until just tender.

Stir vegetables once gently with a fork and add a tablespoon water as needed to prevent sticking. There should be little, if any, moisture left at end of cooking. Add sauteed mushroom slices. Serves about 8.

BRUSSELS SPROUTS AMANDINE

- 3 to 4 packages frozen Brussels sprouts, cooked as directed on package
- 1/2 cup butter
- 3 tablespoons lemon juice
- 1 package slivered almonds, toasted
- Salt and pepper

Melt butter; add lemon juice, almonds and sprinkle of salt and pepper. Simmer 5 minutes, stirring occasionally. Place cooked hot sprouts in serving dish and pour almond sauce over top. Serves about 8.

CRANBERRY ICE

- 2 pounds cranberries
- 4 cups water
- 4 cups sugar
- Juice of 4 lemons
- Juice of 2 oranges

Cook berries in 3 cups of the water for 10 minutes, or until all of them burst; force through a sieve. Make a sirup of the sugar and other cup of water and cook 10 minutes. Mix sirup with cranberry juice, add lemon and orange juices, and mix well. Chill and place in two refrigerator trays. Freeze quickly, stirring well a couple of times during freezing. Serves about 12.

If you prefer a quick version of cranberry ice (it won't be as bril-

liant red), just beat until smooth 2 cans jellied cranberry sauce and pour in slowly 2 small bottles of carbonated grapefruit beverage. After this mixture is frozen, remove from tray, break in chunks, beat until fluffy, and return to trays to complete freezing.

RAISIN CHESS PIE

- 1 unbaked 9-inch pastry shell
- 1 cup dark seedless raisins
- 1 cup toasted pecans, coarsely chopped
- 1 small can pineapple tidbits, well drained
- 1/2 cup butter
- 1 cup light brown sugar
- 2 teaspoons vanilla
- 2 eggs, beaten
- 1/4 teaspoon salt
- 1/3 cup heavy cream

Cream butter until soft. Gradually beat in sugar and vanilla until mixture is light and fluffy. Mix in beaten eggs and salt. Stir in cream. (Mixture may appear curdled, but this does not affect baked product.) Combine with raisins, pecans, and pineapple; mix well and turn into pastry shell.

Bake in hot oven (450) for 15 minutes. Reduce heat to quick moderate (375) and bake until just set, about 30 minutes longer. Cool and serve plain or with whipped cream or whipped dessert topping. Small servings will be sufficient, as pie is rich.

ORANGE MINCE PIE

- Pastry for a double crust 9-inch pie
- 3 cups of your favorite mincemeat mixture
- 3 California oranges, peeled and sectioned
- 1 cup confectioners' sugar
- 2 tablespoons orange juice
- 2 teaspoons grated orange rind

Line tin with pastry. Pour in mincemeat mixture and arrange orange sections over top. Moisten edges of pastry with cold water. Adjust top crust and press edges together; trim pastry, turn up, and flute. Pierce crust in several places to allow steam to escape.

Bake in a moderately hot oven (425) for 30 to 40 minutes, or until lightly browned and filling slightly bubbly. While pie is still warm, brush on mixture of sugar, orange juice and rind.



The perfect ending for your Holiday feast... a festive Raisin Chess Pie served with whipped cream!

Photo: California Raisin Advisory Board

NOVEMBER GARDENING

by Nenetzin R. White

BY NOW, frost has undoubtedly killed all your annuals and frozen back the tops of your perennials. Good hygiene in gardening means that you will pull up the annuals, cut off the perennials, and burn all this material. Thus, any diseased plants or insect eggs will be destroyed, rather than be left to start afresh in the spring.

Protect Young Trees

New or young trees should have their trunks wrapped. There is a professional type of Kraft paper that discourages beetles or insects from hiding underneath. This is wrapped around the trunk like puttees, from bottom to top, and then tied. Young trees of many varieties are thin skinned, and the bark has a tendency to split during the winter when we get hot, sunny days with very cold nights.

This wrap also keeps rabbits from nibbling the bark of fruit trees which need to be protected for several years, until the bark is rough. As these trees get a bit older, you can substitute fine wire mesh as a tall collar, rather than using the tree wrap.

The basic idea behind trunk wrapping is to prevent loss of moisture from the drying winter sun and wind. This is particularly important after last year's severe drought. There is very little water in the subsoil, and the water table throughout much of the Northeast has dropped alarmingly these past three years.

All About Mulches

Mulches are extremely valuable during the summer to retain moisture, prevent erosion, and keep roots cool. During our Northeastern winters, they are a must for many plants, including most new plantings. Plants of questionable hardiness will probably need not only a mulch around the roots, but also top protection.

Winter mulches are best when put on after the ground is frozen. If plants are covered too early,

they will continue to grow. The resulting new growth is too soft and will freeze, occasionally freezing back older wood as well. Also, field mice nest early and delight in a nice freshly mulched area. They will often feed on the lower trunk and roots, sometimes completely killing the plants. They love such "goodies" as all members of the rose family, viburnums, dogwoods, and euonymus.

When selecting materials for mulches, we have to take into consideration availability, cost, and appearance. Also entering into the picture is fire resistance, whether the material decomposes rapidly or slowly, presence of weed seeds, and disease possibilities. Generally speaking, organic mulches are the best because of their benefit to the soil.

Anything organic is usually a good mulch — buckwheat hulls, grass clippings, hay, leaves, manure, pine needles, sawdust, peat moss, evergreen boughs, or shredded bark. Some of these will pack together (leaves and grass clippings); others may blow away (sawdust, buckwheat hulls, or peat). Some have weed seeds and may burn (manure), while others need the addition of nitrogen, or they will take it from the plants (sawdust).

You, and you alone, must decide which mulch is best for your use. Those that blow can be anchored with pine boughs; nitrogen can be added to sawdust or material that is going to decompose; those that pack down can have some peat or other light material added to them.

One of the newest and best mulches is coarsely shredded bark. It is clean, weed-free, non-blowable, and it decomposes slowly. In my opinion, it is just about perfect.

Keep all mulches away from the crowns of perennials (make a small circle), and do not remove them too early in the spring.

(Continued on page 44)



THANKSGIVING

by Eleanor A. Chaffee

Thanks now to Him Who gave us summer's beauty
Poured into crystal, for the heart to keep;
Who gave us memories that will not perish
In the dark season given to long sleep.

Thanks now to Him Who laid His peace and healing
Upon our little hurts, upon our fears;
Who was not forgetful of our sorrows,
The whisper-soft and hidden sound of tears.

Thanks now to Him Who holds the year before us
Safe in His hands, knowing what we can bear;
He will not let the burden be too heavy,
Since we are each His own especial care.

The AA Clothes Line



8243. Handsome all occasion frock for women. Sizes 34 to 48. Size 36, 38 bust, short sleeves, 3 1/8 yards of 45-inch; 1/2 yard contrast.

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RULES TO FOLLOW

How many times we (yes, women are the chief offenders) buy "bargains," which turn out to be anything but... or make a spur-of-the-moment purchase which looked oh, so nice in the store, but goes with nothing else in our wardrobe! Following are suggestions to follow when shopping for clothing. They come from the National Institute of Drycleaning's fashion expert, Dr. Dorothy Lyle.

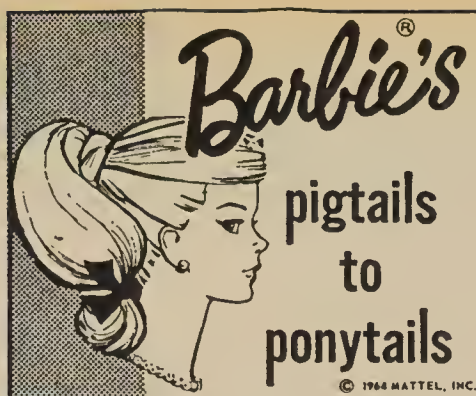
1. Select and patronize a reputable store.
2. Become acquainted with quality brands.
3. Make a list of your needs before you go to the store to shop. Stick to the list.
4. Figure how much you have in your clothing budget. Stick to it.
5. Extend your current wardrobe. Make certain the items you select combine well in color and design with items hanging in your clothes closet.
6. Check fit to see that it is correct. This will eliminate alterations.
7. Remember the cost of upkeep should be considered at the time of purchase.

WITCH HAZEL

By Inez George Gridley

From mustard gold to golden rod
Summer retreats on slow green feet,
Her sun-warmed arms heaped high with flowers,

Blooms she forgets are doubly sweet.
When the last leaf is scorched with frost,
It warms the heart against the cold
To find in some brown pasture lot
Witch hazel's unexpected gold.



TRY THE TRAY GAME

With the bewitching season upon us and jolly times to come, school vacations can be made twice as festive by giving a "Holiday Party." Refreshments can be simple and inexpensive. Just lay out all the ingredients for the goopiest of sundaes imaginable and let your guests fix their own.

And — you can play games galore that require nothing more than pencils and paper, a little imagination, and some items readily available in your own home.

Did you ever play the Tray Game? Place 10 to 12 items on a tray (spools of thread, bobby pin, book, glass, etc.) in the center of the room. Let your guests look at them for three minutes, then remove the tray. The object is to remember all the items and write them down. The one who remembers the most items, wins.

If you have a small group over, then Oratory is the game for you. Pick out five or six different objects, such as a rubber boot, emery board, or lighthouse beam, and ask each guest to speak three minutes on the subject you've given him.

The Suitcase Game is truly a trunk full of fun. You'll need two suitcases, two of Dad's pajama bottoms and socks and two of Mom's hats and old dresses or blouses. Put one of each item into the suitcases,

then close them. Line up your guests in two relay teams and then blow the whistle. Each member of the team has to open the suitcase; put every bit of clothing on; take everything off; close the suitcase; and then run back to her teammate, who will repeat the process. There will be so many giggles at the outlandish costumes and the struggling involved in putting the clothing on, it won't make any difference who wins.

Gardening

(Continued from page 43)

March is likely to be our most damaging month. Whenever you can, leave as much of the mulch in place through the summer as possible.

Many people often lose sight of why we mulch in the winter months anyway. The basic idea is to allow the plant tissue to "toughen up" and ripen before we mulch. Hence, wait until the ground is well frozen before application. After freezing, the mulch will help to retain the cold, and the 2 or 3 inches of frost under the mulch will stay that way — hopefully until spring.

The roots below this slight frost level can continue to grow all winter, resulting in a more vigorous plant in the spring. Furthermore, this frost under the mulch prevents alternate freezing and thawing of the ground, a fatal thing to many shallow-rooted plants, such as the perennials. This alternate freeze-thaw process results in heaving roots to the surface, thus killing them.

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American Agriculturist SOUTHWEST Holiday

leaves the cold Northeast in mid-January for about three weeks of the historic, scenic Southwest, California, and even a stop at Tijuana, Mexico. See Carlsbad Caverns, the Grand Canyon, Phoenix, Las Vegas, Death Valley, Disneyland, San Diego, San Francisco — to name a few. Write for the facts today.

☆☆☆

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The AA Clothes Line

7342. Yoked jacket knitted in one piece from neck down - including sleeves. Directions for Sizes 32-46 included. 25 cents.

4797. Slimming dress with collar and side pleats. Printed Pattern in Sizes 34-48. Size 36: 2-7/8 yds. 45-inch. 35 cents.

4930. Smart sleeves and T-panel skirt. Printed Pattern in Misses' Sizes 10-20. Size 16: 3-1/8 yds. 39-inch fabric. 35 cents.

4930 10-20



ALL PRINTED PATTERNS



9475
Wardrobe FOR
TEEN-AGE FASHION
MODEL DOLL
11 1/2"

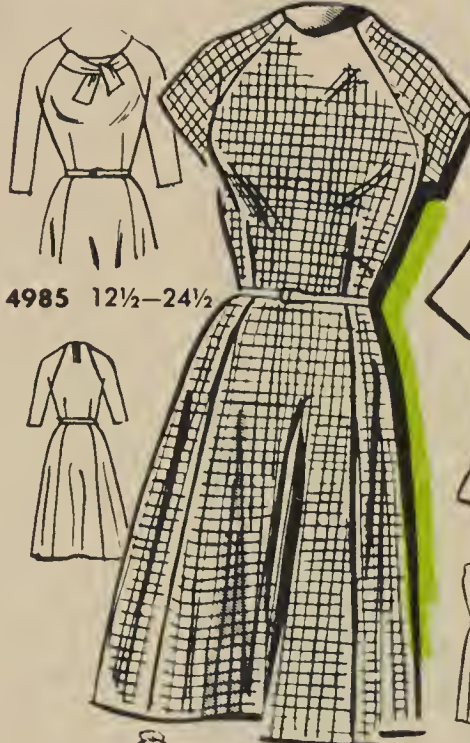


9456
10-20



7342

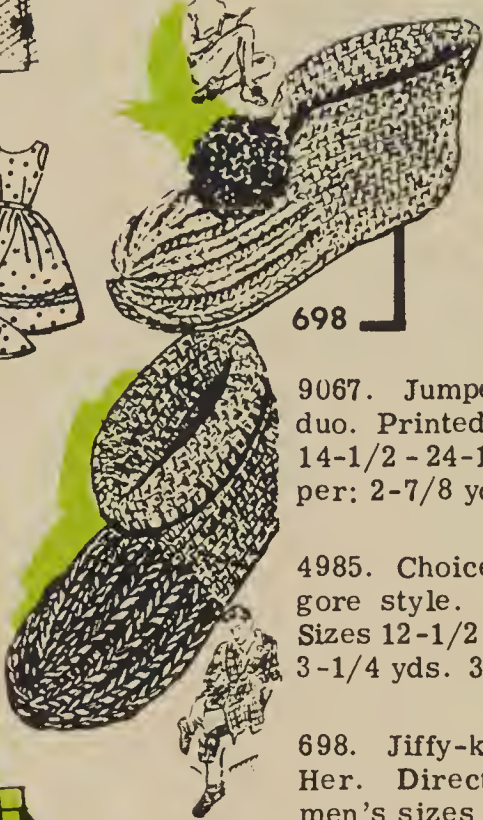
4797 34-48



4985 12 1/2-24 1/2



9067
14 1/2-24 1/2



698

9067. Jumper and blouse - a neat duo. Printed Pattern in Half Sizes 14-1/2 - 24-1/2. Size 16-1/2 jumper: 2-7/8 yds. 45-inch. 35 cents.

4985. Choice of necklines for 6-gore style. Printed Pattern Half Sizes 12-1/2 - 24-1/2. Size 16-1/2: 3-1/4 yds. 39-inch. 35 cents.

698. Jiffy-knit slippers for Him, Her. Directions for men's, women's sizes small, medium, large included in pattern. 25 cents.

9475. Fashion wardrobe for 'teen model doll. A little girl will love it. Printed Pattern for an 11-1/2 - inch doll. 35 cents.

9456. Smart 3-piece set! Printed Pattern in Misses' Sizes 10-20. Size 16 suit: 3-1/8 yds. 45-inch fabric. Blouse included. 35 cents.

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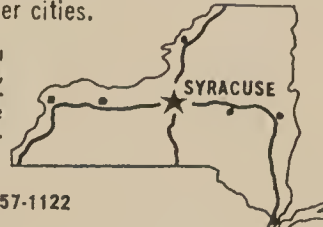
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QUESTION: What shall I give for Christmas?
What shall I read these long winter evenings?

ANSWER: Ed Eastman's great new book—JOURNEY TO DAY BEFORE YESTERDAY.



This book won a CERTIFICATE OF SPECIAL MERIT at an exposition of the printing industry in New York City because it is so beautifully bound, illustrated and printed.

It will also win a special place in the heart of your father, mother or friend by guiding them down memory's lane when life was simple and uncomplicated.

Send your check or money order for \$5.95 per copy to AMERICAN AGRICULTURIST, Department Book, Savings Bank Building, Ithaca, N. Y. and your copy of the book will be mailed postpaid.

N.Y. State add 2% tax



ED EASTMAN'S PAGE



HE IS T HANKFUL

There is an old chestnut that always makes me laugh, no matter how often I hear it.

A man was working in his garden when his minister came along. After passing the time of day, the minister said: "What a beautiful garden you have made in partnership with God."

"Yes," agreed the man, "but you should have seen it last year when God had it alone!"

Yes, we can laugh, but of course we can do nothing at all without God's help.

At this end of the season . . . and at this Thanksgiving time . . . what a wonderful feeling it is for a farmer to be able to look back across the year and realize that he has done the best he could with the help of nature and nature's God.

Most of the things that went bad . . . like the drought . . . were beyond his control. But even when things do go bad, the farmer knows that there will always be a seed time and a harvest, and that if he just has faith and keeps plugging away, things will almost always come out better than he expected.

At Thanksgiving time the farmer can look back with some satisfaction and thankfulness at his full barn and silos, and the increase in the growth of his cattle during the season.

One of my finest memories is of my father strolling down the old cow lane on a Sunday afternoon in August or early September when his crops were maturing.

I can see him yet walking slowly with hands clasped behind his back. Sometimes he would climb upon the old rail fence and sit looking a long time out across his corn, potatoes and green meadows. At such times Father couldn't put it into words, but he knew why he was a farmer, and was grateful and appreciative for the privilege.

IT MAKES THEM HAPPY

Orders for my book *Journey to Day Before Yesterday* continue to pour in. Very often, when a person gets his copy, he sends in more orders for birthdays, anniversary, and Christmas presents to his friends.

I think writing this book has

brought me more happiness than almost anything else I have done, because the many letters from readers prove that the book brought them so much happiness. Letter after letter tells how "Journey to Day Before Yesterday" helped the readers to forget for a while the problems of the present and relive their youth when life was young and gay.

To get a copy postpaid, send check or money order for \$5.95 . . . plus 12 cents sales tax by New

York State residents . . . to American Agriculturist, Inc., Department Book, Savings Bank Building, Ithaca, New York.

WE PILE THEM ON

Did you ever stop to think of the tremendous burden we are placing on the workers of this country, mostly those between 21 and 65? The population explosion has given us millions more young people, whom we of course are glad to have, but most of them have to be fed, clothed and educated until they are 21.

On the other end of life are millions of skilled and able workers who are forced to retire at 65. That leaves a comparative lessening number of workers between 21 and 65 who have to support themselves and most of the rest of us.

Moreover, we are making it

harder all the time for the workers to do it because of taxes, inflation, laws, and government regulations. Most of these workers, including farmers, work from one to three months every year for the government before they have a cent for themselves.

Still we go on and on piling up the tax bill. New York State has a new sales tax, and the Federal government, on top of everything else, has raised the Social Security taxes.

Don't think when you get a Federal check that it is a gift. Money does not grow on trees. It has to be earned by the producers, and the government is no producer. It simply takes your money and gives a part of it back to you.

There is little incentive to save now for old age. "What's the use?" millions say. "Uncle Sam will take care of me whether I work or not." But will he? At the rate he is spending, Uncle Sam may soon reach the bottom of the barrel. Thousands of old people have worked and saved all their lives, only to find that taxes and inflation have wiped out their savings.

I hate to think of what my grandchildren and yours will think of us when they realize the awful burden of debt we are leaving them. What an inheritance!

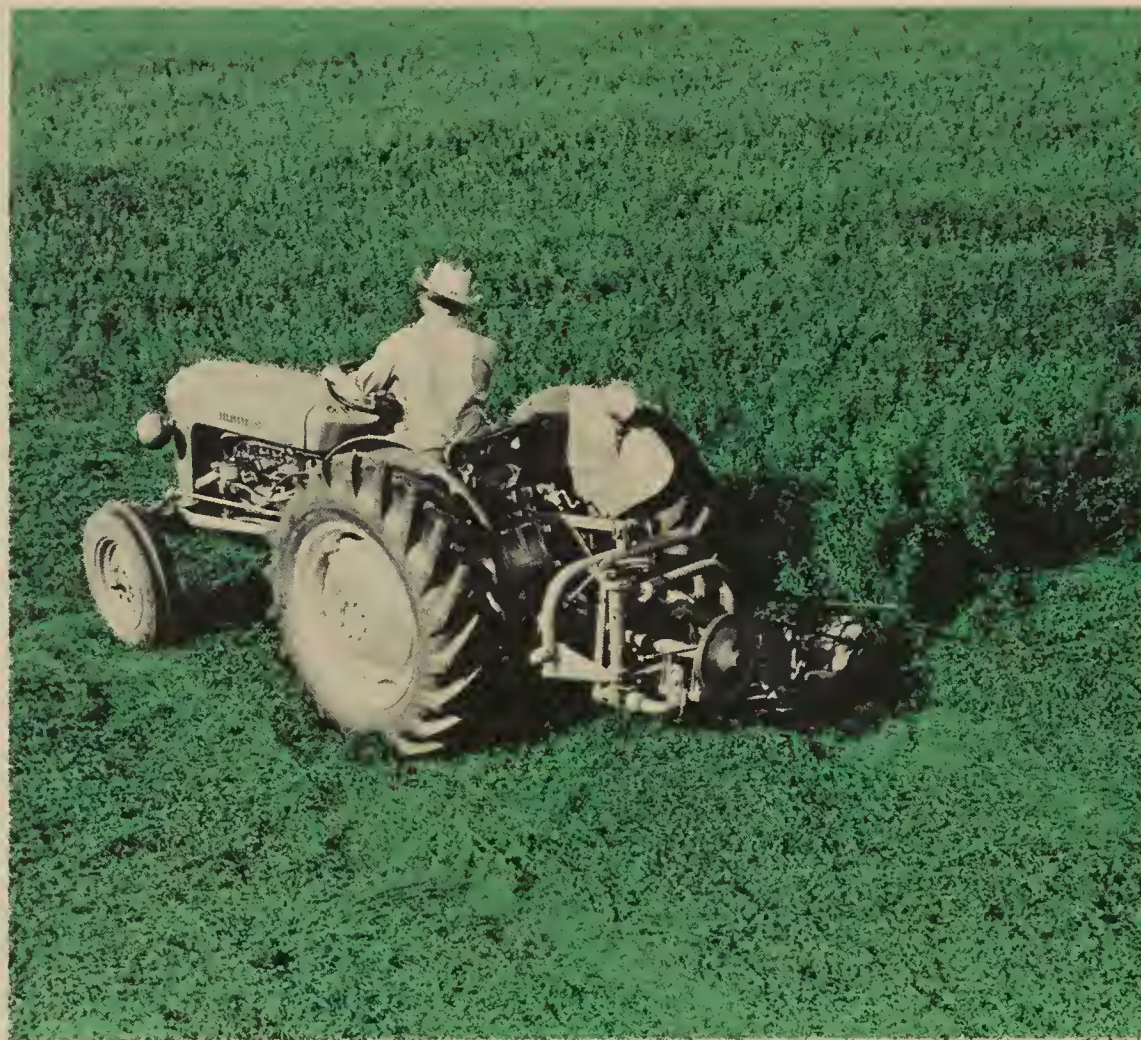
No socialistic government has long succeeded. The people in the Colony of Jamestown, Virginia, nearly starved until John Smith did away with the common store house, gave every man a few acres of land, and told him to work or starve. Robin Hood, the man who stole from the rich and sometimes gave to the poor, is romantic to read about . . . but in reality he was nothing but a highway robber.

Russia is the best modern example of extreme socialism, and Russia is filled with hungry people, and is rapidly returning to capitalistic practices.

It will be hard for America to reverse our galloping socialism, but we have met other crises and we can meet this one if we wake up in time.

BUT IT'S GETTING LATE!

GREEN GOLD



There's nothing that looks better to a farmer than a fine crop of alfalfa like this one.

In September I took a trip through Cayuga and Seneca Counties in the beautiful Finger Lakes country of New York, and I returned more enthusiastic than ever about alfalfa. Much of these counties is on the limestone belt. Alfalfa likes plenty of lime, so there are hundreds of acres of this great legume in these and adjoining counties.

Fortunately, alfalfa will also do well on acid soils if lime is added.

Did you ever try to dig out an alfalfa root? When it is mature, alfalfa has a root system sometimes running several feet into the ground. That is the reason why it stands drought so well, and why it is hard to kill it when it is well established. When you dig up an alfalfa root, or that of any other legume like the clovers, beans and peas, you will find many tiny nodules on the roots which have the strange ability to take nitrogen

from the air and turn it into plant food. That's the reason why alfalfa and the other legumes add fertility to the soil instead of taking it away.

There is no better roughage than alfalfa. Cattle love it, and flourish on it because it is rich in protein. Alfalfa helps to keep the grain bill down.

Few indeed are the crops in this climate which may be harvested . . . like alfalfa . . . several times in the season.

To add to its many good qualities, alfalfa is a beautiful crop. It's a deep green from early spring until late fall, and I know nothing prettier to a farmer than a good stand of alfalfa contrasting with a big field of maturing corn running alongside.

In your planning for next year, why not get started with alfalfa, or enlarge your present acreage?

Alfalfa is well named Green Gold.

EASTMAN'S CHESTNUT

Many of you will remember with respect and affection the late Carl E. Ladd, one-time dean of the New York State College of Agriculture. Among Carl's many lovable qualities was a grand sense of humor. He loved to tell stories at farm meetings to illustrate some point he was making. Here is one of his favorites:

A woman overheard her new, inexperienced maid answer the telephone two or three times. The last time it irritated the maid, and she banged the receiver down with some emphasis.

"Who was on the telephone, Nora?" her employer asked.

"Taint nobody, ma'am. Jest some fool woman kept telling me: 'It's a long distance from Washington.'"

"What did you say to her, Nora?"

"I says, 'Yas'm, it sure am.'"

American Agriculturist, November, 1965



SERVICE BUREAU

NON-ASSESSABLE

"My husband had insurance with Liberty Bell Mutual Insurance Company many years ago — about 1954 — for a very short time. They now have asked us to pay over \$200 because they have gone bankrupt.

"Can an insurance company do such a thing? Will we have to pay this bill?"

We wrote the Pennsylvania Insurance Department to inquire about the assessment levies which our subscriber had received. They sent us a copy of the Court Assessment Order and Decree, which ordered that all policyholders of the dissolved company, who had policies during all or part of the period from December 25, 1948 to November 15, 1954, pay the Insurance Commissioner of the Commonwealth of Pennsylvania, as Statutory Liquidator of the dissolved company, an additional assessment. This is for the purpose of paying the losses and loss expense together with the liquidation expense of the company.

Since this was an assessable insurance company, this was a legal levy and the policyholder is responsible for such payment.

If one is interested in buying insurance from a mutual insurance company, he should make sure the policy is non-assessable in order to avoid such a levy. The words "non-assessable" will appear on the face of the policy.

REWARD



WANTED

I'm looking for a District Fieldman for the Champlain Valley, Vermont area. If you have the qualifications to meet people, have a dependable car, want a year around position with income of \$100.00 or more a week to start, send me your qualifications.

DONALD RUSSELL

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SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mrs. Hilda Neild, Livingston Manor (refund on plants)	\$11.00
Mr. Ward E. Gearing, Chatham (refund of down payment)	12.00
Mrs. Lloyd B. Weber, Wayland (refund on plants)	3.09
Miss Viola Rock, Pearl River (refund of deposit)	50.00
Mrs. Carl McCaig, Stanley (damage settlement)	22.00
Mrs. William Theadore, Roscoe (refund on dress)	10.97
Mr. Howard Finch, Sidney Center (refund on order)	14.00
Mr. Henry Nelson, Geneva (payment for wheat)	761.01
Mrs. Isabel Sampson, Staatsburg (refund of deposit)	5.00
Mr. Chas. E. Dewey, Moravia (insurance settlement)	1,000.00
Mr. Clarence Stanton, Owego (refund on seed corn order)	26.35
Mr. R. C. Rackham, Stanley (refund on insurance)	32.40
MASSACHUSETTS	
Mrs. Elizabeth Murphy, Springfield (refund on machine)	137.00
CONNECTICUT	
Mr. Fredrick C. Wimler, Jr., Durham (payment for wreaths)	73.80
Mr. George Prue, Storrs (refund on orders)	10.55

CAN YOU HELP?

Mrs. Floyd Goodman, Rt. 2, Clifton Springs, N.Y., is trying to locate a color work chart for McCall's Transfer Pattern No. 1856 — Zinnias.

Mr. Arthur Eiss, R.F.D. 1, Baldwinsville, N.Y., would like the poem, "This is known as a Chataugay thaw."

Miss Jessie W. Leigh, 207 Delaware St., Walton, N.Y., would like the words to "When the Harvest Days are over, Jessie Dear."

Mrs. Evelyn Osborne, 4 Spring St., Auburn, Maine, is looking for the following sheet music: "One Fleeting Hour," "Lullaby Land," and "Maine."

If you have crochet, knitting or tatting books that you would like to pass on, please send them to Mrs. Louis L. Frederick, R.F.D. 1, East Clarendon, Vt.

Mrs. Asher Thompson, R. 2, Pittsfield, Pa., would like the songs, "Pearly White City" and "Automobile of Life."

Mr. L. O. Kniffin, R.D. 2, Canton, Pa. would like a copy of the old song, "The Old Musician and His Harp."

Miss Gail Parker, Wallace, N. Y., would like a copy of the ballad, "Bonny Barbara Allen."

Mrs. Chas. Dederick, Lake Shore Rd., R. D. 1, Clay, N. Y., is interested in old-fashioned Christmas tree ornaments and trimmings.

Tractor Accident Nearly Fatal



Mr. Harold Fox of Chittenango, N.Y. was moving a felled tree with the front end loader; it was loaded low. Working on a side hill which he knew well he leaned over to trip the loader lever. His weight, the hill and load were too much, the tractor tipped. He was thrown, then the tractor rolled over him. A truck driver hauling gravel from a nearby pit spotted him. Shortly, Mr. Fox was in the hospital. With fractured ribs, collarbone, ruptured kidney and a punctured, bruised heart muscle his condition required transfer to another hospital with intensive care facilities.

Receiving \$1042.10 from local agent Charles Heath of Cazenovia, N.Y. Mr. Fox gave this statement of thanks:

I want to say Thanks for the checks totalling \$1042.10. For over ten years I've kept up my policies with your Company. Then, less than a month before my accident, Mr. Heath called on me and I took out another policy.

I am thankful I had all these policies because they paid all my medical expenses and gave me an income while I couldn't work. I'd encourage others to take out North American policies and keep them renewed.

Harold Fox

OTHER BENEFITS PAID

Most of these people carry several North American policies, which together give larger benefits.

Edwin A. Roloson, Houghton, N.Y.	\$ 365.84	Minnie A. VanAmeron, Holley, N.Y.	\$ 156.43
Caught in corn picker—injured hand		Fell on walk—broke arm	
Robert Brooks, Binghamton, N.Y.	340.00	Dora Bristol, Altmar, N.Y.	158.58
Fell from tractor—broke leg		Fell on rock—injured ribs	
Kevin D. Kent, Hinsdale, N.Y.	219.16	Florence L. Benjamin, Burlington Flats	261.28
Fell from wagon—cut scalp & inj. neck		Tripped on rug—broke arm	
Donald J. Kehoe, Jr., Moravia, N.Y.	340.90	William Croll, Valley Falls, N.Y.	1056.63
Thrown from horse—broke shoulder		Fell down steep bank—inj. neck, back	
Everett Reynolds, Sherman, N.Y.	1425.00	Harry P. Lawrence, Lisbon, N.Y.	167.14
Caught in power shaft—broke arm		Caught in fan—injured hand	
George W. Harris, Elmira, N.Y.	144.00	William Magill, Middleburg, N.Y.	180.00
Caught in jointer—cut hand		Slipped and fell—broke ankle	
Ward L. Simpson, McDonough, N.Y.	398.56	William Evans, Waterloo, N.Y.	114.28
Kicked by cow—broke leg		Playing baseball—injured knee	
Mable S. Meade, Oxford, N.Y.	196.30	Andrew Newman, Canisteo, N.Y.	249.14
Knife slipped—cut tendon		Fell from load of hay—broke arm	
Malcolm J. Dever, Homer, N.Y.	214.28	Karl Belden, Berkshire, N.Y.	263.57
Kicked by cow—cut and bruised leg		Horse ran away—cut face and scalp	
Mabel Hovell, Franklin, N.Y.	109.29	John K. VanDeWeert, Etna, N.Y.	427.00
Gored by bull, injured back & leg		Fell off truck—broke wrists	
Peter Kuhaneck, Gowanda, N.Y.	116.03	Henry Tackett, Kerhonkson, N.Y.	178.20
Caught in baler—broke arm		Slipped cranking tractor—inj. shoulder	
Ruth H. LaVare, Dickinson Center, N.Y.	134.71	Gordon R. Saville, Hudson Falls, N.Y.	524.61
Fell from hay load—cut forehead		Auto acc.—cuts and bruises of body	
Mary Hart, Johnstown, N.Y.	1073.33	Ralph DeBatts, Sodus, N.Y.	127.79
Pick-up truck acc.—inj. neck, shoulder		Starting motor, explosion—burned hand	
Mary Jane Clarke, Bergen, N.Y.	512.00	Duane A. Reisdorf, Java Center, N.Y.	157.17
Tripped, fell—broke arm		Fell from wagon—broke elbow	
Bertha I. Failing, Dolgeville, N.Y.	95.23	Lulu E. Murdock, Penn Yan, N.Y.	325.00
Fell down stairs—broke wrist		Kicked by cow—injured back	
Gilbert Hurlburt, Watertown, N.Y.	965.47	Richard Jenkins, Troy, Penna.	226.00
Fell thru hay chute—broke shoulder		Hit by grain drill—broken teeth	
Seth Lehman, Castorland, N.Y.	232.84	Brian L. Burrell, Savinville, Penna.	263.85
Changing baler tire—broke finger		Thrown off pony—broken arm	
Levan Ashley, Livonia, N.Y.	499.71	Claude Eldred, Honesdale, Penna.	278.56
Kicked by cow—inj. back		Crushed by cow—inj. chest	
Clarence B. Cramer, Munnsville, N.Y.	160.00	Ernest James, Allentown, N.J.	458.48
Thrown from tractor—cut legs		Fell off tractor—injured foot	
Donald Swick, Honeoye Falls, N.Y.	500.00	Walter Polhemus, Cream Ridge, N.J.	427.84
Pinned by car—broke hip		Thrown while drilling—inj. back	
LaVern Francisco, Amsterdam, N.Y.	1505.75	Thomas Palmer, Englishtown, N.J.	2050.00
Gored by heifer—inj. back		Truck acc.—broke hip	
Kay Kinney, Vernon, N.Y.	270.00	Eddie T. Cyr, Pittsfield, Mass.	980.00
Kicked by horse—broke hand		Fell from ladder—broke hip and ankle	
H. Duane Skeele, Fabius, N.Y.	307.14	Laurent W. Roy, Lisbon Falls, Me.	336.86
Truck accident—inj. wrist, burns		Pulled into chopper—inj. hand, broke finger	
Caroline A. Chase, Canandaigua, N.Y.	235.86	Richard W. Clough, Vernon, Vt.	113.32
Pedestrian accident—inj. hip, knee		Crushed by cow—broke hand	
Joseph Jullie Kania, Bullville, N.Y.	135.00	Ronald McKirryher, Rutland, Vt.	339.74
Hit by bar—broke finger		Hit by limb—injured eye	

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DeLaval Owners...

Are all inflations the same?

If you use a DeLaval pipeline, parlor or floor model milker which has the 06 milker shells *Maes* New Style D Narrow-Bore inflations can help you do a much better job of milking. Read below what DeLaval owners report on the *Maes* New Style D Narrow-Bore. We sincerely hope you will want to join the more than 100,000 dairymen who depend on high-quality *Maes* products . . . soon. See your local *Maes* dealer today or send for free catalog.

New *Maes* users report:

George Sorenson, Pine River, Wisconsin: "The Maes New Style D Narrow-Bore works very well. I had been using the 01 inflations, but had trouble keeping them on some of the cows — we have all Jersey cows. With the Maes we have had none of them drop off the cows or suck air as the others did. I am sure I could say they are the best we have used." Mr. Sorenson has three DeLaval units and milks 54 Jerseys.

John Stout, R#1, St. Joseph, Missouri: "We are having very good results with the Maes New Style D Narrow-Bore. They are gentle on the cows and we find they milk cleaner and quicker. They also stay on the cows better." Mr. Stout has two DeLaval units and milks 30 Holsteins.

Jim Bilderback, R#2, Sweetwater, Tennessee: "We like Maes New Style D Narrow-Bore very much and they have saved us 55 minutes on our milking time." Mr. Bilderback has three DeLaval units and milks 55 Ayrshires.

William Kooiker, Orange City, Iowa: "We are pleased to report that we really like the Maes New Style D Narrow-Bore. I did not think they would be as good as the 01 but we found that they last longer and stay on the cows much better." Mr. Kooiker has a six unit DeLaval pipeline and milks 90 Holsteins.

Norbert Siefing, R#1, Rossburg, Ohio: "I am well satisfied with the Maes New Style D Narrow-Bore. They stay on the cows much better—without gulping for air. It will be much more convenient to be able to buy them from New Weston Grain Co." Mr. Siefing has four DeLaval units and milks 37 Holsteins.

Leon Otten, R#3, Wyalusing, Pennsylvania: "I am getting more milk with less cows than I ever did before. The Maes New Style D Narrow-Bore inflations are very flexible and stay on good. I will be a Maes user from now on." Mr. Otten has two DeLaval units and milks 20 Holsteins.

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- Will not swell up, will not absorb butter fat, will not become semi-round.
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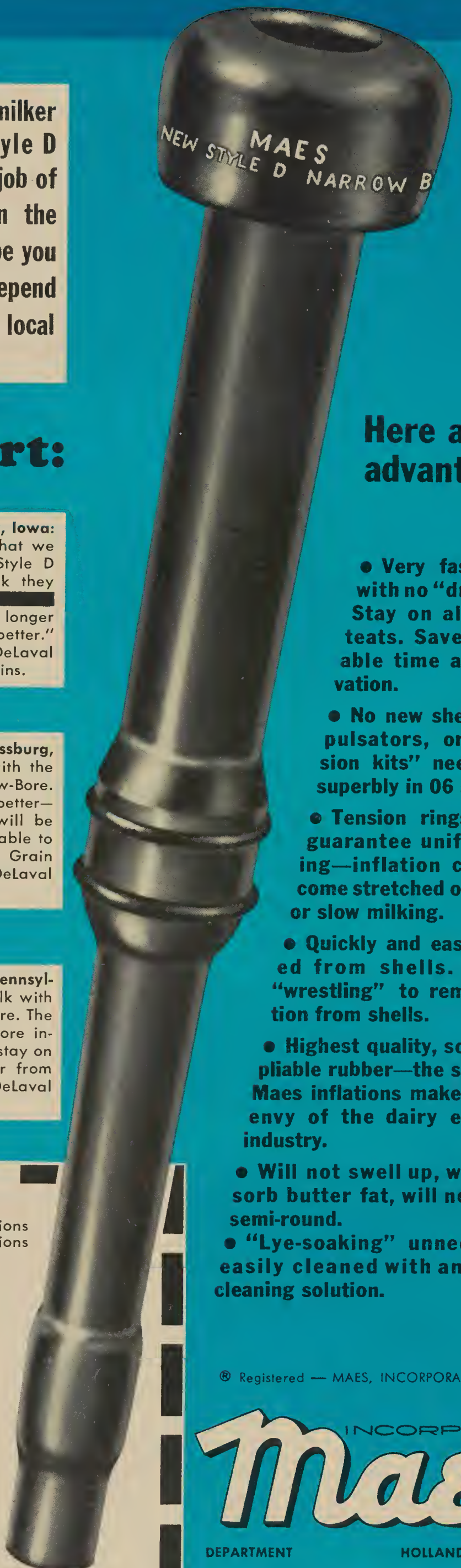
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American **A** *griculturist*
and the
RURAL NEW YORKER
FOR THE NORTHEAST FARMER



December . . . a month when the earth drowns beneath the sculptured beauty of the snow. December . . . when our hearts are warmed by the message of the heavenly hosts . . . hallowed by the ages, yet forever new.

Best wishes for a joyous holiday season and an abundant 1966!

DECEMBER 1965

Calves up to 48 pounds heavier at 4 months from Purina Research

Until a heifer begins producing milk, she's not adding to your income. That's why it's so important to grow calves fast and bring them up to breeding weight as soon as you can.

Forty years of Purina research with more than 3,300 calves has developed new Purina Calf Startena, which helps grow heifers that may freshen as early as 22 months of age.

Holstein calves raised on Purina Calf Startena average 320 pounds at 4 months of age at the Purina Dairy Research Center. That's 48 pounds heavier than the national average! This extra growth is not just wasted fat, but a real increase in size since calves average 1 inch greater in height at withers.

Why bigger calves with Calf

Startena? An improved energy-protein balance, for one thing. Improved palatability. Vitamin and mineral fortification for sound body growth. An antibiotic for protection against scours.

You may save money by starting calves fast with Purina Calf Startena. Research at North Carolina State University has proved that dairymen can lose \$7.25 for

each month a heifer goes beyond 24 months without calving. So it's just plain good economy to start them fast and breed them for early freshening.

See your Purina dealer for new Purina Calf Startena. It's backed by many years of research to help you give your calves a head-start toward early freshening... and early return of their growing costs.

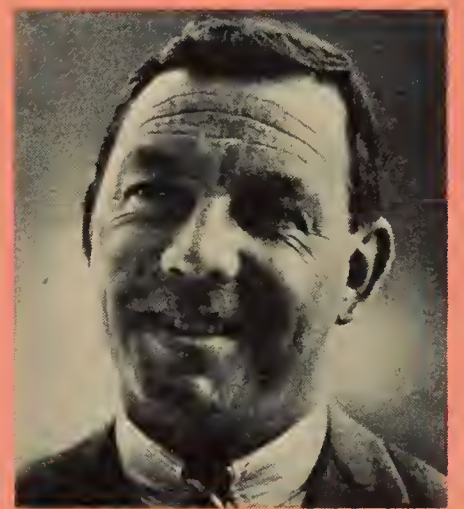


RALSTON PURINA COMPANY • CHECKERBOARD SQUARE • ST. LOUIS, MISSOURI

Holstein heifer calves measure one inch higher at withers at four months of age at the Purina Dairy Research Center.



**PURINA
CHOWS**



DAIRY FACTS

by Dr. J. P. Everett
Manager, Purina Dairy Research

When does a calf become a heifer? This question resulted in many interesting discussions among my former students at North Carolina State. Students in reproductive physiology maintained that the start of regular estrous cycles introduced heiferhood. Nutrition majors argued it is a gradual change as rumen function begins.

Without resolving the calf-heifer question, recent experiments have shown that a good quality calf starter does more to initiate rumen fermentation than hay. (Research also shows that prolonged feeding of milk or milk replacer slows rumen development.) Although feeding hay early in calfhood will not kill the calf, experiments in the Purina research herd show that this practice does decrease gains (at a time when gains are most efficient) and frequently results in more digestive upsets.

In view of the small amount of hay eaten, it is questionable that the cost of hay racks in individual calf pens can be justified.

Controlling Scours

Scours is a major calfhood problem. Most cases of diarrhea in young calves are caused by common bacteria.

Minimize the problem by seeing that:

- (1) Calves receive colostrum for the first three days.
- (2) Careful sanitation is practiced. (This includes cleanliness in the maternity stall and in the calf pen—as well as avoiding contamination in feeding equipment.)
- (3) Chilling is avoided. (Wet bedding—combined with cold—is a major offender.)
- (4) Calves are not overfed milk replacer.

Importance of Nutrition

When calves scour it is common practice to reduce the amount of milk replacer fed. This is a questionable practice (assuming the calf is not being overfed) since it reduces liquid intake—and dehydration is the major cause of death from scours.

When a calf is scouring nutrient requirements are increased, as they are during the course of any infectious disease. In our herd we continue feeding Nursing Chow at the recommended level and keep water available.

Good feeding and management pays off: Livability among 3,300 calves at the Purina Calf Research Center has been 97 percent in nearly 40 years of continuous research.



American Agriculturist

and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

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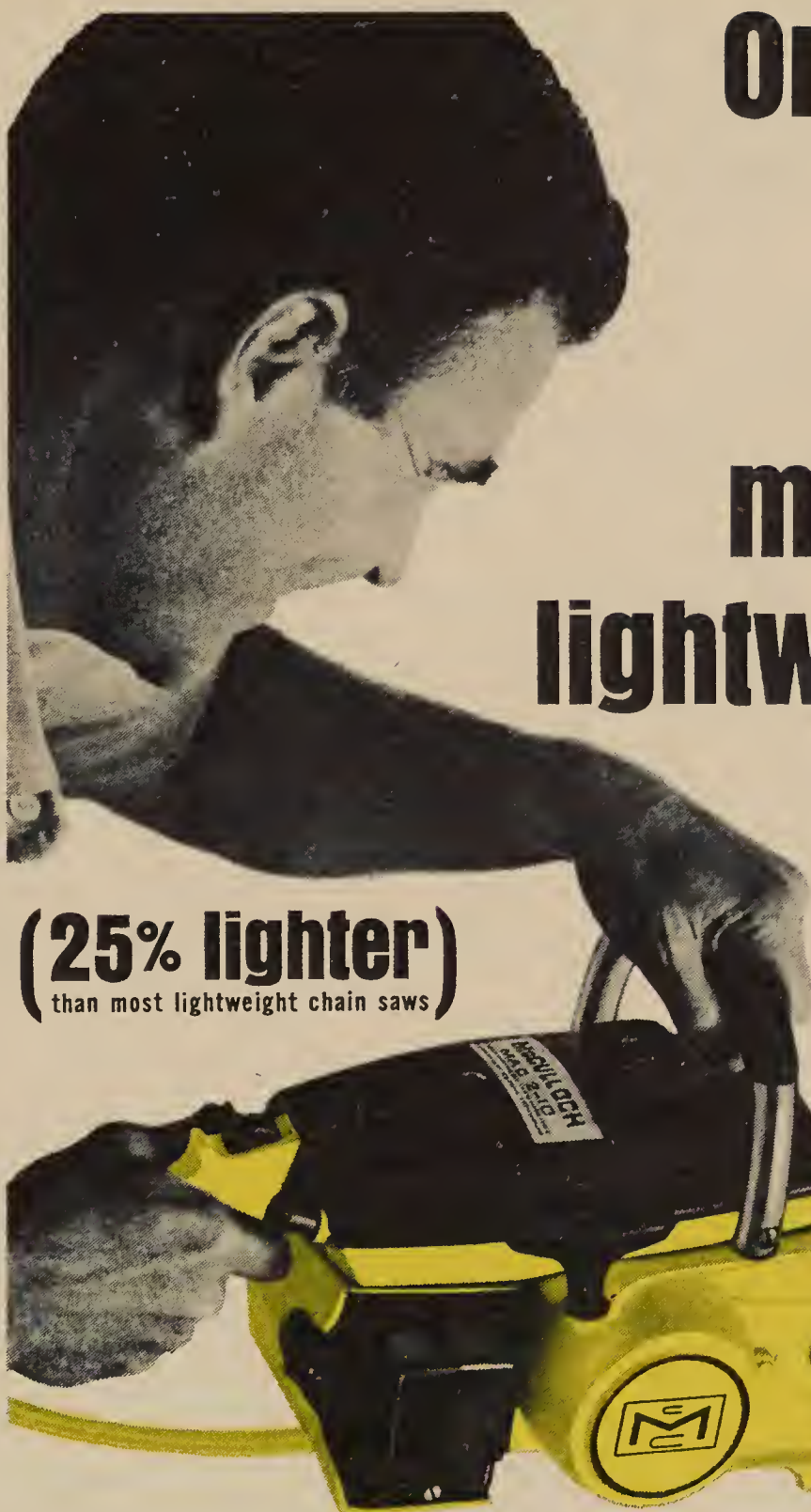
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(25% lighter)
than most lightweight chain saws

On July 1, 1965 the new McCulloch MAC-10 series made every other lightweight chain saw overweight and out-of-date

MAC 1-10: The world's lightest direct drive chain saw. 10½ lbs.*

MAC 2-10: World's lightest automatic oiling chain saw. 10¾ lbs.*

*POWER UNIT ONLY. DRY LESS BAR AND CHAIN. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Easiest Operating Lightweights Ever: The new MAC-10 Series saws are up to 25% lighter than most so-called lightweights, yet have every feature you could ask for.

Automatic Oiling: MAC 2-10 features automatic chain oiling for longer bar and chain life *plus* a separate manual system, so you can supply extra oil for the toughest cutting conditions.

Famous McCulloch Dependability: The MAC-10 Series saws are new from grip to tip. New concepts reduce parts by 30%, yet the MAC-10's retain all the performance, features and dependability you expect in a McCulloch.

Extended Working Life: Unlike some other lightweights, the MAC-10's cylinders can be rebored and fitted with new pistons for years of extra life. The MAC-10 Series has ball and needle bearings throughout, and every working part on the MAC-10's is cast and machined from the finest steels and alloys available.

Longer Running Time: With oversize oil and fuel tanks standard on the MAC-10's, you can cut as long as most full sized saws. And with McCulloch's new single-jet carburetion system and new MAC-10 Series engine design, fuel consumption is cut as much as 12%. Precision engine tolerances allow the use of McCulloch oil at a 40:1 gas/oil mix for even more economy and virtually smoke-free operation.

Power For Fast Cutting: McCulloch's advanced engineering means more usable power. When you make the first cut, you'll know that lightweight doesn't mean under-powered.

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Runs In Any Position: No matter what position you cut in, you'll get full power from a MAC-10 Series saw. The idle governor allows the MAC-10's to idle without stalling or sputtering.

Pick The One That's Right For You!

MAC 1-10: Complete with specially designed bar and chain. Available with 12", 16", 20" and 24" McCulloch guide bars and new long wearing chain for all general purpose cutting jobs.

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See your McCulloch chain saw dealer for the details and see the all new MAC-10 Series chain saws, the new lightweight chain saws that make all other lightweights overweight and out-of-date.

You must enter before Dec. 15, 1965, to be eligible for the Twin Win Saw Draw Sweepstakes.



EDITORIALS

by GORDON CONKLIN

SALES TAX

Like everyone else, I'm for God and motherhood . . . and against death and higher taxes. Like everyone else, I'm for having public agencies do more on my behalf . . . and against paying more from my own pocket to provide funds to do the job.

To get this matter of taxes . . . specifically, sales taxes . . . in perspective, let's remember that 39 of the 50 states have a sales tax. Seven states have a two percent sales tax, 21 peg it at three percent, and 11 have rates exceeding three percent . . . topped by Pennsylvania's five percent.

In addition to the states, there are 2,329 counties, school districts and municipalities that are levying their own sales tax. Every time an Empire State resident travels in one of the other 38 states . . . or in one of those 2,329 other governmental jurisdictions . . . having a sales tax, he contributes to their public exchequer. Now the residents of those areas have the same responsibilities to contribute to the public costs of the State of New York.

There are those in New York State who claim to be committed to repeal the recently-enacted sales tax. This makes an emotionally attractive sales pitch for any politician . . . all of us are against more taxes. At the same time, though, we demand better education for our children, improved roads, more feathers for the welfare bed, and so on and on.

The major reason for the passage of the sales tax was the pressure for more state aid to local school districts. As a result of increasing the amount of state aid per pupil, a number of Empire State school districts this year lowered local school tax rates on real property . . . or at least held the line. Because farmers are the principal owners of acreage in the State, I'm sure it is in their best interests to retain the sales tax. It will not reverse, but will slow down the previously soaring upward pressure on real property taxation.

Merchants who are forced to do the initial collection and accounting for the sales tax system are the people who have a legitimate complaint. Surely they should be entitled to retain enough to reimburse them for their added costs.

THINK SMALL

Some people seem to deeply distrust any form of bigness . . . defined as anything larger than their own operation. I receive many a letter lamenting big farms, big farm cooperatives and big corporations. Strangely enough, though, most of these comments do not include any suspicion of bigness in government. Indeed, there is usually included a comment that "the farmer's only hope is through government help."

Why this bitter denunciation of individuals capable of farming on a large scale, and of powerful groups voluntarily formed by farmers . . . with the same breath that seeks salvation from a federal government that is the nation's largest single business?

Doesn't it seem contradictory to condemn Agway because of its multi-million dollar gross sales volume, for instance, and then put one's trust in an establishment whose annual "gross" is 100 billion dollars? The farm co-operative must serve its customers to survive

financially; the latter need only raise taxes or increase the national debt.

It looks as though most farmers agree that bigness in some form is necessary to agriculture if it is to attain equality in a society having big unions and huge corporations. Some promote the concentration of production resources in the hands of those most capable of using them effectively for producing . . . larger farms. Some believe the most pressing need of the hour is to concentrate bargaining power in the hands of large organizations that can withhold farm products from the market if necessary to enforce their demands. Others argue that the coercive power of big government is the only way to extract from consumers the economic equality that farmers have been unable to achieve in the marketplace. Finally, there are those who claim that some combination of all these things is the best path to take.

The problems inherent in concentrations of power have been one of mankind's dilemmas ever since the cave dwellers first organized into tribes and the strongest man became chief. Ever since, the human race has struggled with the subordination of individual desires to the objectives of the group. Man has worried for ages over the fact that the "only way to run a railroad" is to have someone in command . . . but human nature being what it is, that the individual may be run over by the railroad train.

It's also human nature to throw rocks at anyone who raises his head above the crowd. The outstanding student or athlete, the most successful farmer, the best-looking girl, the most competent businessman, anyone who strives for excellence in any field . . . all have known the barbs cast by people who for one reason or another were unable to match their achievements.

How much of the distrust of bigness is merely envious human nature? And how much is a legitimate concern over individuality and the dangers of domination?

What's your opinion?

SPEECHES I SHALL NEVER HEAR

Politician: "We certainly goofed on that farm program . . . it was a complete flop. However, we learn from our mistakes, and so there is still something to be gained from our misjudgment. It should be made clear that our party leadership, myself included, was completely responsible for this debacle and no blame can be assessed to our political opponents."

Dairy co-op leader: "Although it is personally painful, I am relinquishing my position of authority in order to bring about a compromise that hopefully will benefit all dairymen. We need stronger cooperatives; if the status of an individual becomes a roadblock to the attainment of this greater strength, then the individual should recognize he is dispensable on behalf of the greater good to the greater number."

Jim Patton: "I differ with Farm Bureau policies, but regret my personal attacks in the past upon the organization's leadership. We can agree that the free enterprise system is basic to our country's production efficiency. We disagree as to how best to serve farmers, but I have respect for Farm Bureau people and want more than anything else to join

with them in a statesmanlike approach to the problems and opportunities facing farm families and the businesses that serve them."

Beatnik: "I've finally grown up enough to realize that individuals have responsibilities to their society. I've been so busy rebelling against all authority that it never occurred to me that the absence of authority is anarchy. I'm even thinking of getting a job and becoming productive!"

Farm magazine editor: "Our competitor is doing a superb job on behalf of rural people. In fact, we read their publication carefully to get some ideas for our own editorial approach. They have a smart, capable group of people in their shop."

Secretary Freeman: "Farm incomes in 1965 are up over 1964 while consumers are paying a smaller percentage of their take-home pay for food. Now there is a very simple way to please both groups in this way . . . it is the withheld income tax. Rather than paying more for food in the market place where there would be a greater protest, consumers pay for subsidies with funds which they never see . . . and therefore never miss. This allows us who are in government to please everybody . . . higher incomes for farmers, lower real food costs for consumers, and bigger and better departments for government employees. Isn't it just wonderful?"

THE UNMENTIONABLE

Heard a famous population expert speak the other day about the population explosion. He reported that, the way things are going, this old planet will soon have standing room only. He paused for dramatic effect after that one and, in the silence, a perfectly audible stage whisper rumbled from the back . . . allowing as how that ought to slow it down some!

The truth is that underdeveloped countries won't get underway unless they can limit their population growth. There is so doggoned much emotionalism involved with this idea that it's hard for some people to discuss it rationally . . . but the fact remains even if it is an "unmentionable."

There never has been, and never will be, any lack of the natural urge to procreate the race. We're told that in 40 years from now the world's population will double to 6 billion . . . mouths to feed, that is. But there is a woeful lack of understanding of how best to harness for the good of everyone this powerful drive . . . including the children born as a result of its expression.

Most politicians are understandably reluctant to say much about so explosive an issue, or propose specific foreign aid programs that might be labelled "birth control." But experience shows that food shipped to many nations just sinks into a bottomless pit as the mushrooming population clamors for more.

It's time to bring this situation out in the open and have a real go-round at discussing it.

SIGN OF THE TIMES

Drove by a school the other day and saw all the eager young folks racing along the sidewalks. In my imagination, I saw them taking up the burdens and responsibilities of coming years.

Then the thought occurred to me of a highway sign that might be appropriate: Drive Carefully . . . The Life You Save May Someday Pay Off Your Share of the National Debt!

Sort of reminds me of the time I was stationed at a remote Air Force base in Greenland, where every man knew to a day how much longer he had to remain there. A road sign read: Drive Carefully . . . The Life You Save May Be Your Replacement!

American Agriculturist, December, 1965

**"Lew Barden,
where'd you get
that new barn?"**

"Agway."

**"And all that
automated
equipment?"**

"Agway, too."

**"They contract
the whole job?"**

**"Everything from the
planning and blueprints
right on through
to erection of the
building and silo
and installation of
all equipment."**

**"How did
it turn out?"**

**"Everything is working
fine and Agway has
local service for
every piece of
equipment in my barn."**

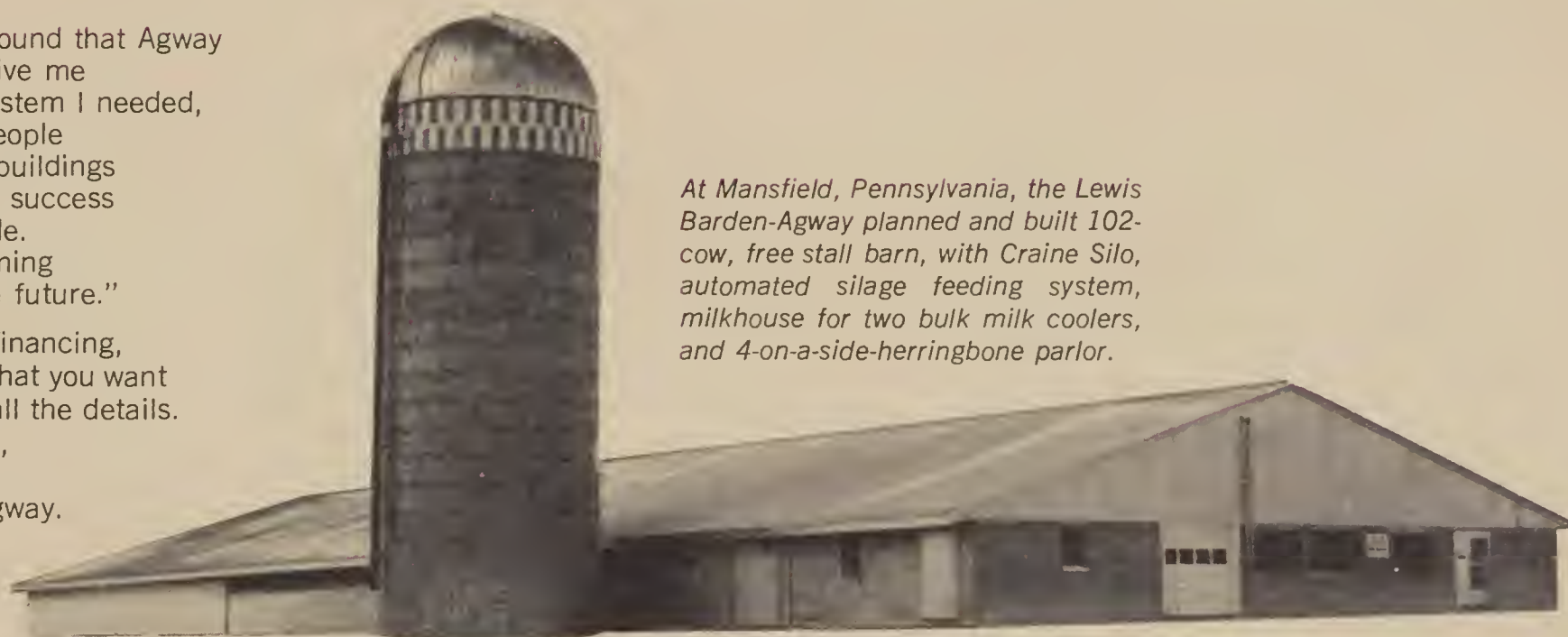
"After my barn burned down I found that Agway was the only place that could give me the kind of modern free stall system I needed, planned and put together by people who are interested not only in buildings and automation, but also in the success of my farm operation as a whole. And they know the kind of farming my son and I want to do in the future."

From picking the site, through financing, to putting on that site exactly what you want and need, Agway takes care of all the details. For your new automated system, make your first move in the direction of your local Agway.
Agway Inc.

At Mansfield, Pennsylvania, the Lewis Barden-Agway planned and built 102-cow, free stall barn, with Craine Silo, automated silage feeding system, milkhouse for two bulk milk coolers, and 4-on-a-side-herringbone parlor.



FARM AUTOMATION SERVICE



FARMERS, sometimes, are inclined to look at part-time farmers with a slightly-jaundiced eye, especially if a man with a job in the city moves to the country and produces enough so some farm products are sold. The farmer tends to feel that he is faced with competition that's not quite fair.

I'd be the first to admit that he has a point. Yet I feel that the possible advantages of part-time farming far outweigh the disadvantages. As I see it, there are four typical situations where part-time farming is practiced.

First, there is the young man who is trying to get a start, for example, Clair DeMond of West Groton, New York. Clair was a student in vocational agriculture in high school. He bought a farm, but for several years he also held down a regular job. Meanwhile, he built up a herd of milkers, bought some equipment, and improved the fertility of his soil.

Clair may be slightly conservative; at least he wants to keep his indebtedness at a reasonable level. Anyway, he's off to a good start, and what better method could he have followed than part-time farming.

Works on Contract

Not so far along the road to full-time farming is Gordon Fuller of Chenango Forks, New York. Gordon, 26 years old, is a carpenter who does work on contract. He is paying for a 40-acre farm, meanwhile remodeling the house and building up soil fertility.

"I am raising some young stock," he told me, "and when I get this place paid for I plan to sell it and buy a bigger farm. Incidentally, we get an appreciable part of our living from the farm."

Then there's Neil Franklin of Itaska, New York, who bought his present farm of 200 acres 12 years ago when he was 46, and runs it in partnership with his son Ivan.

Before that he ran a bakery route, and after buying the farm he continued the route for three winters.

"It was a big help in getting started," he said. "Then I began to drive a school bus. In fact,



both Ivan and I still drive school buses."

You might say at this point that the Franklins are adding to their income when otherwise they could be feeling the need to expand the dairy of 35 to 40 cows.

Two Sides

Incidentally, there are two sides to most questions. You feel that a neighbor who is farming part time gives you unfair competition, but did you ever look at the other side of the coin? Suppose you lived in town and held down a job in industry. Suppose a new worker appeared and you learned that he owned a farm and worked it evenings and weekends. Wouldn't you feel he was competing a bit unfairly?

This brings up the second type of part-time farmer . . . the man on the relatively small farm who finds his income too small. He could get bigger, but he may feel he's too old to go deeply into debt, or there may be other reasons why he prefers to add to his income by working off the farm. Personally, I'm "agin" any restrictions on any person (man, woman or child) who wants to work at any job for which he or she is qualified.

A farmer that fits this description, at least to a degree, is Lester Ketchum of Lisle, New York. Twenty-three years ago government took part of their farm to build a dam, so he bought the present farm of 45 acres, which, along with some rented land, keeps 26 dairy cows. I asked Mrs. Ketchum if they had considered expanding, and she replied "Never. In fact, we are making more milk now than we did on the

by Hugh Cosline

old farm . . . one reason being artificial breeding."

This is essentially a one-man operation. Mr. Ketchum also drives a school bus, and works for a month or so each summer at the county fair grounds.

Driving a school bus, where the opportunity is available, is a favorite part-time job for farmers. Al Brenner of Harpursville, New York, still drives a bus after 13 years. "It lets me be home for milking," he said. "Sometimes, especially in the spring, I get 'itchy' when I must stop planting corn to drive the bus, but it is a steady income, not affected by poor prices or bad weather."

Al worked in a plant, then did his stretch in the armed forces in World War II. After the war he went back to the old job, but was laid off and rented a farm. Gradually he built up his own herd and equipment, finally renting the farm he now operates, and which he bought about a year ago.

So part-time farming not only helped Al to get a start, but is adding a substantial sum to his present income.

Just as part-time farming offers a way to get started in farming, it offers a way to get out. Many times . . . we might say most times . . . it's better for a farmer of advancing years to live on the farm and have a little work to do rather than sell and move to town, where he may be so unhappy that he soon dies of boredom.

There are many ways this can be done. Sometimes, if the farm is near a town or city, there is a market for building lots. Farther out in the country, neighboring farmers are often looking to rent

land so they can increase the size of their farms. While the opportunities are limited, a few farmers get elected as town supervisors or justices of the peace. You can even set out trees, and thus leave something of value to coming generations.

Live In The Country

And, finally, there is the man who just wants to live in the country and raise his family where they can have more interests and fewer temptations. Sometimes such a family will buy or build a house on a city-sized lot, but more often they want a little room.

Howard Conklin, our editor's brother, who is a Cornell professor, is a good example of this type of part-time farming. Howard owns 25 acres near Slaterville, about 10 miles from Ithaca. The Conklins have three children . . . Lany (19) Glen (16) and Nancy (12). "The big reason for doing a little farming, including some beef animals and dairy young stock," says Howard, "is that it's the best place I know for growing youngsters. The boys have had 4-H projects. They have learned to work, and they have a healthy outlook on life."

Inevitably this type of part-time farming leads to some selling of eggs, vegetables, or maybe even milk. But the total value of the products of all part-time farmers is an insignificant part of the total. And look at the values of that kind of training for future citizens!

I hope I have made my point. The next time you visit a neighbor who is a part-time farmer, check your reactions. If he is new in the neighborhood, make him feel welcome. He is likely to be worth cultivating.

Oh, yes. There are two advantages I haven't mentioned. The number of farmers is shrinking. Non-farmers and part-time farmers add to the taxable property in the country, and make possible the services you want and need. Also, it's my belief that non-farmers who live in the country come to think like farmers, and are likely to be valuable allies in pushing legislation needed by farmers.



Ivan Franklin unloads some hay.



Al Brenner and son Ricky.



Gordon Fuller of Chenango Forks, New York.

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John Reiner & Co. of Syracuse Corp.
2250 Park St., Syracuse, N. Y. 13208

Stull Equipment Co.
3100 W. Fourth St., Chester, Pa.

DEALERS

NEW YORK

Adams—Wilson Equipment Co.
Alder Creek—Futuramic GLF
Altamont—Howard L. Gage, Inc.
Amityville—Purdy's Lawnmower
Andes—Liddle Brothers
Angelica—H. Jorgeson & Son
Arcade—M. C. & C. M. Drake
Athol—Cameron & Cameron
Attica—George Burnison
Auburn—Main & Pickney

Ballston Spa—Perrino's Imp. & Tractor
Batavia—Batavia GLF Farm Store
Bayshore—Arthur Rauff
Brant—Thomas C. Chiavetta
Brasher Falls—Boot's Saws Sales & Repair
Broadalbin—Carpenter & Sunderland
Brewster—Martyn Equipment Co.
Bronx—N. Y. Plumbers Specialties Co.
Bronx—Portable Equip. Distributors
Buffalo—West Seneca Tool Rental
Burke—Cowan's Esso Service

Canandaigua—Don Howard
Catskill—Burgers Sales & Service
Cazenovia—Waterbury & Coe Fd. & Fm. Sup.
Champlain—Raymond Bedard
Chatham—Bob's Lawn & Garden Mart
Chestertown—Roberts' Chainsaws
Clarence—Clarence Lawnmower Service
Clinton—Clinton Farm Supply
Clinton Corners—Bowman Sales & Svc.
Cohocton—Edmond Appliance & Hardware
Conesus—Gordon T. Alger
Constable—Wilson Farm Service
Corlath—Main Motors, Inc.
Corning—Rice & Sons
Cornwall-on-the-Hudson—Ed's Mower Shop
Cortland—Cain Tractor & Implement Co.

Deer River—Francis Nicholl
De Freestville—Master Equipment
Deposlt—Clinton P. Tompkins
DeRuyter—H. W. Cook Farm Service
Downsville—T. J. Klindt
Dunkirk—Gunther's Service
Dryden—Dryden Implement, Inc.

East Meadows—United Rent-Alls of Cen. Nassa
East Randolph—Ed Gumienik
East Williamson—Ralph Verbridge
Edmeston—R. S. Hardie & Sons
Elizabethtown—B & H Saw Sales
Elmira—Keller's Saw Shop
Elmsford—Stillwell Equipment
Essex—Lester's Service

Fabius—Fabius Hardware
Falconer—Schutt's Saw & Mower Service
Ft. Johnson—Jim's Garage
Ft. Plain—Hallsville Farm Supply
Freedom—Mc Kerrow Bros.
Freeport—Freeport Equip Sales & Svc.

Glen Cove—Larry's Mid-Island
Granville—Scott's Tractor & Implement
Greenville—Greenville Farm Supply

Hankins—Sipple Service
Haverstraw—Shaw Jobson
Hobart—E. T. Van Buren & Sons
Hubbardsville—Jacob Misch & Son
Hudson—A. J. Grabs Sons
Huntington Sta.—Huntington Grinding

Inwood—Long Island Lawnmower
Ithaca—A. R. Davis
Ithaca—Seneca Supply & Equip. Co., Inc.

Jamaica—Sheehan Hardware Co.
Johnson City—Goodrich Implement Co.

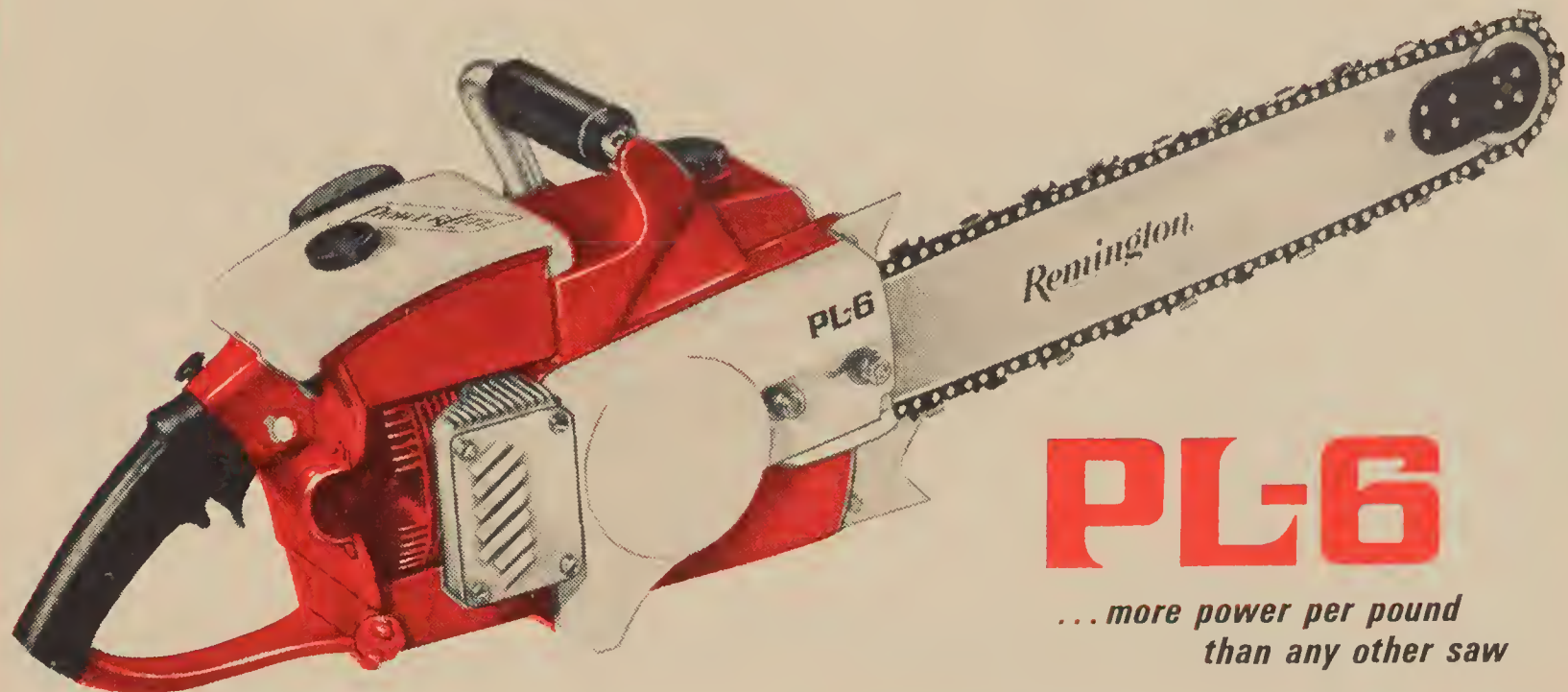
Kanona—Larry's Saw Shop
King Ferry—Gilling & Nedrow
Kingston—Power Mower Repair
Knowlesville—Knowlesville GLF Farm Store

Leicester—A. R. Christiano Hdwe & Impl.
Lewiston—Lewiston Tree Specialist
Liberty—Clinton P. Tompkins
Lisbon—R. G. Kentner & Sons
Little Falls—Slabe's Garage
Livonia Center—Day Tractor & Impl. Co.
Lockport—Walter Kohl
Long Island City—Contractors' Supply Corp.
Long Island City—Mahoney Clarke, Inc.
Long Island City—Stillwell Supply Co.
Lyons—Schleede Farm Supply

Madison—Farm & Home Store
Marcellus—Russell Equipment Co.
Margaretville—Douglas Kelly & Son
Marlboro—Ralph C. Herman Co., Inc.
Massapequa—Fort Neck Tool Rental Co.
Mayville—Art's Lawnmower Shop
Mechville—Quack'bush Mower & Eng. Sls. & Svc
Merrick—Marshall Machinery
Mexico—H. G. Miller Service
Middleburg—Schoharie Equipment Co.
Middleport—R. Max Hyde
Middletown—Bellows & May
Middletown—Lou's Repair Shop
Milford—Yale Hardware
Miller Place—Miller Place Svc. Sta.
Millerton—Scoland Farm Machinery
Mineola—Liffco, Inc.
Monroe—Mike's Small Engine Repair
Monticello—Theimer's Garage
Moores Forks—E. R. De Coste & Son
Moravia—Aabel Sales
Morrisonville—Bernard Barber

New Berlin—Pope Bros. Garage
New Hyde Park—A B C Rent-All
New Lebanon Center—The Fixit Shop
New York City—Biddle Purchasing Co.
New York City—Contractors' Trading Co.
New York City—Westwood Paper Co., Inc.
Newark—Fairville Garage
Nichols—J. D. Robertson & Son
Nineveh—Edward Oliver
North Bellmore—Lange Hardware
North Lawrence—J. A. Wilber & Son

New from Remington



PL-6

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The world's most powerful lightweight...
Zooms through the largest trees with up to a
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Here are the features you want and need!
Powerful 5.8 Cu. In. 16 lb. engine design—
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Also see Remington's Super 754, PL-4, PL-5

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REMINGTON CHAIN SAW 2 YEAR GUARANTEE

REMINGTON ARMS COMPANY, INC. guarantees this product against manufacturing defects in materials and workmanship. Should your Remington chain saw require service under the guarantee, send it prepaid to Remington Arms Company, Inc., Power Tools Department, Park Forest, Illinois. Defective parts will be replaced without cost of parts or labor to the original purchaser. Your chain saw will be returned to you prepaid.

DEALER INQUIRIES INVITED

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Remington Arms Company, Inc. Park Forest, Ill.

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North Merrick—Community Rent-Alls
N. Ticonderoga—Belden's Saw Sales & Svc.
Northport—Vernon Machine Garden Supply
Norwich—Kosowsky Hardware

Oneida—Oneida Milling Co.
Oneonta—Bill Mosher
Ovid—Ovid Small Engine Clinic

Patchogue—Carl's Lawnmower Shop
Pawling—Utter Brothers
Pearl River—Pearl River Cycle Co.
Peekskill—Peekskill Lawnmower Service
Penn Yan—Hayes Exch. Store & Auction Serv.
Pine Island—Roy Brothers
Pleasantville—C. V. Pierce Co.
Port Jervis—Rowe-Hendrickson Saw Filing
Port Washington—Precissioner, Inc.
Poughkeepsie—Mike's Lawnmower

Rexford—Rexford Small Engine Shop
Richfield Springs—Beadle & Co.
Riverhead—Rolle Brothers
Rochester—Swinging Mower
Rome—David Teuscher
Rosedale—A & F Tool Rental

Saranac Lake—Keough Marine Sales
Schenectady—Thruway Engine Clinic
Schuylerville—Nelson Pratt
Selkirk—Hillmann Bros. Equip. Co.
Sharon Springs—Edgar Handy Garage
Sidney Center—Jess F. Howes
South Glens Falls—Rt. 9 Motor Svc.
Speculator—Tracy Saw Sales
Spencer—Simcoe's Garage

Spring Valley—Clarkstown Equipment
Staten Island—Trimalawn Equip. Co.
Stone Ridge—George Von Barga
Syracuse—Syracuse Farm Supply Corp.

Thendara—Bob's Gulf & TV Svc.
Theresa—Pete Giltz Implement Co.
Trumansburg—Maurice Bowers
Tupper Lake—Eugene Fortier

Vails Gate—Vails Gate Rental Mart
Vermontville—Mac's Service

Walton—Russell's Sales & Service
Walworth—Duell's Garden Store
Waterloo—Finger Lakes Equip. Co.
Watkins Glen—Glen City Garage
Weedsport—Blumer Supply
Wellsville—Chiavetta Bros., Inc.
West Leyden—Stanley Freeman
Westbury, L. I.—Contractors' Supply Corp.
West Shokan—West Shokan Garage
Whitney Point—George W. White
Worcester—Edward R. Johnston

NEW JERSEY

Belmar—Heyniger Brothers
Blairstown—Blairstown Electric Co.
Edenville—Master Grinding Co.
Edgewater—H. G. Rice
Elmer—Lester T. Roark Farm Supply

Elmer—Delbert Robinson
Englewood—Contractors' Supply Corp.
Freehold—Barg & Morford
Garfield—Ralph's Highway Service
Hackensack—Mc Manus Floor Machine
Hammonton—Rusnak Brothers, Inc.
Haskell—United Rent-Alls of Lakeland
Hewitt—Mann's Hardware
Highland Park—Kish Brothers
Hoboken—Contractors' Trading Co.
Long Valley—Long Valley Mower Shop
Maplewood—Gauthier Door Check
Middletown—Wm. Potter & Son
Midland Park—The Sharp Shop
Midland Park—Tietz Chevron Service
Montville—Steve Willard
Mt. Holly—Cooney Welding & Machine Co.
Morganville—Dick's Lawnmower Service
Neptune City—Henry's Hardware
New Market—Sheldon Dix Saw Service
Old Tappan—Nor'ern Valley Mower & Equip. Shop
Passaic—Passaic Grinding Shop, Inc.
Paterson—Garden State Tool Supply Co.
Pitman—K & H Auto Stores
Port Elizabeth—Reeves Lumber Co.
Salem—C. W. Plummer
Short Hills—Millburn Grinding Shop
Sparta—Sparta Tool Rental
Succasunna—Homecraft Rental Service
Swainton—Barber's Farm & Garden Supply
Swedesboro—Slusar's Garage
Trenton—Caola and Company
Trenton—Olden Supply
Union—Force Machinery
Westfield—Storr Tractor Company
Williamstown—Eldridge's Lawn & Garden Center

WINDOWLESS HOUSE

We have a 40 x 284 windowless poultry house that holds 12,000 birds in stair-step cages suspended over pits. The pits are 8 inches deep; no water is added. In fact, we have drains and sump pumps in the pits to take natural liquid out. A regular cross conveyor barn cleaner at the end of the house carries manure to a tank-type spreader. Manure is pushed into this barn cleaner with a scraper powered by a small tractor.

We usually clean the house every two months, but this varies with the weather during the winter time. We prefer, of course, to spread it ahead of a corn crop, but have also used it on meadows where it really makes hay crops jump!

The poultry house has truss rafters four feet apart that require no supporting posts; we estimate a total weight suspended from the trusses of ten tons per row of birds. We used exterior plywood for the side walls and ceiling, but if we did it again we would use Masonite. Also, if we were doing it again, we would incorporate complete automatic feeding and belt egg collection in the setup. Insulation is 3 inches thick on the side walls and 4 inches on the ceiling.

We use a powered feed cart at present that delivers to an upper and lower row of birds with one pass. We feed all mash now, although we have fed crumbles. We team up with a neighboring poultryman and buy a carload of feed at a time, then split it between us. We have a metal feed tank with

a capacity of 25 tons for storing our portion of the carload.

We gather eggs three times a day and store them in an egg room in which we try to maintain a temperature of 55°F. and 70 percent relative humidity.

One of our problems is cleaning watering troughs once a week . . . it's almost an all-day job for one person. The birds bill feed into these troughs that are on the same side of the cages as the feeding troughs. We think it would be better if the water trough was on the opposite side from the feed trough so that birds would have a tendency to clean off their bills just a bit as they turn from feed to water.

Our lighting schedule starts 20-week-old birds off at 14 hours of

light, which is continued to 32 weeks of age, then increased 15 minutes per week to a maximum of 20 hours. Some of our started pullets come in from an 8-hour light schedule and some from 14 hours.

We know we must never reduce light on laying hens, so we move the "8's" to 14 and hold the "14's" where they are. Our present birds hit 85 percent production one week and have been above 70 percent production since they were 27 weeks of age. We sell 30 to 50 dozen eggs per day here at home and move the rest on a wholesale basis ungraded.

By the way, we also have 70 milk cows in two separate herds on other farms. — *William Fulton, Adams, New York*

Personal Farm Experience

The items on this page all come from the firing line of farm production.

BIGGER HERD

With our present setup we can care for a lot of cows . . . just the two of us (father and son). Ten years ago we had 35 to 40 cows; now we keep around 80.

The cows are in free stalls, with sawdust for bedding. We have an 18,000 gallon pit for liquid manure which we clean out every ten days. We have two tanks for spreading, one 1,000 gallon and a larger one holding 2,600 gallons. We have used the setup a year and a half, and are well pleased with it. We kept the investment low by building a good part of the equipment needed.

Right now we are trying something new, putting a couple of bags of 20 percent superphosphate in the underground pit every day.

Cows are fed grain (while milking), haylage put up in a conventional silo equipped with an unloader, and corn silage.

We would raise more corn but too much of our land is too near "vertical" rather than horizontal. — *George and Willis Ocain, Goshen, Connecticut*

DAIRY FARM

We feed our 45-cow herd hay and silage the year around. In the spring, cows go out on pasture during the day only until they can go out nights, then they're turned out nights only and stay in the barn during the day all summer.

We've noticed that dry weather dramatizes the advantages of higher levels of fertilization . . . crops produce well even in times of moderate drought when they're well fed. Alfalfa weevil is a real problem, and leafhopper damage is also evident. It makes a farmer

wonder about expanding alfalfa acreage until the time when approved longer-lasting insecticides are available.

Our herd has averaged more than 500 pounds of fat annually for five years and produced more than 14,000 pounds of milk per cow this year. We've been working closely with the Extension Service and Penn State in a farm records project and find it helps a great deal in management. — *Leroy Coleman, Montrose, Pa.*



Fred (left) and Paul Hafner in their roadside stand.

ROADSIDE STAND

We grow strawberries, sweet corn, tomatoes, cabbage, melons, squash, cucumbers and eggplant on 175 acres and sell about 15 percent of what we grow at our roadside stand. It is open from June to November. We also sell a lot of berries and tomatoes to people who pick their own.

The balance of our production is delivered to chain stores in Syracuse, most of whom have warehouses to service a wide area.

One of our problems is to have enough volume to keep customers

supplied. Competition from other areas is rugged in these days of rapid truck transportation.

All the crops are irrigated, which is almost a necessity when growing vegetables for the fresh market, and we have a sizable cooler in which to store vegetables to maintain quality. — *Hafner Brothers (Fred and Paul), Baldwinsville, N.Y.*

ONIONS AND LETTUCE

We grow two crops, onions and lettuce, on about 100 acres of muck just south of Oswego. They are sold to chain stores and brokers over a wide area.

One of the troubles of small onion growers is misinformation about the supply. We believe that the big fellows manipulate market and supply information for their own advantage.

Raising vegetables on muck is hard hot work, and when young men get the wages they do for short hours, we wonder who will work our good muck land in years to come. Even so, it takes less back-breaking work than it once did. Chemicals now do 75 to 80 percent of weed control on onions and maybe 40 percent on lettuce.

We have irrigated for ten years, but last year we improved the efficiency of irrigation by laying tile by which we can control the water level. Our muck is too low for natural drainage, so we installed a pump over a 16-foot pit to pump out water which eventually goes into Lake Ontario. If necessary, we can also pump water into the tile to raise the water level. The County Extension Service was very helpful in installing this system. — *Angelo and Tony Ferlito, Oswego, N.Y.*

SOMETHING NEW



W. H. Marshman (left) and John Bednarz, a satisfied customer.

We are trying something new at Orkel Fruit Farm . . . "pick 'em yourself" apples.

Last winter we pruned 12 acres of apple trees quite drastically to bring the fruit closer to the ground. Depending on how the experiment works out, we may do the same to six more acres.

We grow about 25,000 bushels of apples plus other fruit including peaches. We sell from 60 to 80 percent of the fruit at a roadside market. We are not happy when selling fruit at wholesale prices, and the new venture is expected to step up the proportion of retail sales.

We have a man in the orchard to help the pickers. He tells them where and how to pick and helps with the ladders (short ones made from long ladders that get broken). We also have made some small ramps about two feet high that the picker can stand on to reach more apples without using ladders.

We charge \$1.25 a half bushel, just half the retail price. This is written early in the harvest season but the idea seems to be working all right. — *W. H. Marshman, Manager Orkel Orchards, West Simsbury, Conn.*

MAJOR FEED MARKET SWITCHES TO WAYNE



(l to r) Wayne Feeds District Salesmen Harold Fries, Gordon Moser, Manager of the Bedford Farm Bureau and Territory Salesman Dick Baker. A branch office is also operated at Everett, Pa.

“Immediate Acceptance!” reports Bedford Farm Bureau

Poultry and livestock feeders of the Bedford (Pennsylvania) County area apparently agree with Manager Gordon Moser that “Everybody benefits when you make the move to Wayne!” They put Wayne Feeds to work “immediately and in volume” on their farms and in their feed lots when Bedford Farm Bureau switched to Wayne last July.

“Results were surprisingly fast,” says Mr. Moser. “For 23 years we handled feed from another supplier, which was in our opinion during that time the best feed for the money. But we had no choice but to make a change.”

WHY BEDFORD CHOSE WAYNE

“Our Board of Directors voted overwhelmingly for Wayne Feeds out of 5 offered to us, because of proven quality and record of performance in the feed lot.”

FOUND PREFERENCE FOR WAYNE

“With the switch,” says Mr. Moser, “we felt we might lose some customers not wishing to change. But we found no opposition to Wayne.”

“In fact, many customers said they would have *PREFERRED* Wayne over the years. Also, we gained many *NEW* customers!”

25.8% SALES INCREASE

“The business that has come to us with our switch to Wayne has been most gratifying,” concludes Manager Moser. “We’ve enjoyed a 25.8% increase in feed sales and customers, and they are still climbing!”

“We are benefitting and our community is benefitting simply because they are now getting the results they want. We are looking forward to even more success with Wayne!”

The experience of the Bedford Farm Bureau is proof once again that WAYNE offers a proven, time-tested way to serve well the needs of result-minded poultry and livestock feeders . . . through local, independent business men operating on true principles of the free enterprise system.

If you are a retail feed dealer—or are considering becoming one—by all means write Allied Mills today about the many advantages of a Wayne Feeds Dealership.

You will find—as thousands have—that Wayne Dealers have business forces working for them (including excellent customer acceptance) that many other dealers miss.

If you are feeding poultry or livestock—don’t miss the added returns that Wayne Research has built into these feeds for you.

BEDFORD CUSTOMERS REPORT TOP RESULTS



CARL DIVELY
Bedford, Pennsylvania

“As a stockholder in Bedford County Farm Bureau I am interested in the success of both, the organization and my farm. I congratulate the management and the directors on their decision to make Wayne Feeds available to me and their many other customers. I am well satisfied and my dairy herd has never done better.”

ROY HINSON
New Paris, Pennsylvania



“We have been customers of Bedford County Farm Bureau for years and when they changed to Wayne Feeds we put our dairy herd on Wayne, with this change taking place during mid-summer and since that time we have experienced a noticeable increase in production over the same period of last year.

I manage the dairy herd for my father and I am feeding a straight 16% Wayne Feed. The cows eat well and we are all very happy that Bedford Farm Bureau switched to Wayne Feeds.”



MAURICE HELSEL
Claysburg, Pennsylvania

“I have been a loyal believer in local-owned Cooperatives and I ordered feed on the first car which was shipped to Bedford County Farm Bureau in 1941 and I have been a customer of theirs ever since.

I went along with the local management and directors when they decided to change to Wayne Feeds and I am very well pleased with their decision and my results on both my dairy cows and hogs.

The most noticeable improvement is with my pigs and Wayne T. C. Pig Starter. I have never used a feed before that could equal this one.”

A. C. WALTERS
Clearville, Pennsylvania



“When our local Farm Bureau changed to Wayne I was skeptical of being able to get a feed as good as the one which they were offering and at the same time get one of a desirable texture. I soon learned that Wayne offered quite a variety and they could supply me with a feed which would fit my needs.

I am well pleased with Wayne Feeds and I am glad that the change was made.”



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The Measure Heard 'round the World

by Wes Thomas

The Nebraska Tractor Test can help you know what to expect from a tractor.

IN THE early days of the tractor industry, manufacturers rated their tractors rather arbitrarily . . . and all too often the actual power was short of the rated power. In 1919, the Nebraska state legislature enacted a law requiring that a stock tractor of each model sold in the state be tested by the state university, and the results made public. It was necessary for only one state to do this to set a standard for the entire industry.

In this day of mass production, tractors sold in Nebraska would, of necessity, have to do the same as tractors sold in every other state. The test course was completed in time to test 65 tractors in 1920; the first tractor tested was the Waterloo Boy. To date, over 900 tractors have been tested and reported.

The tractors furnished by the manufacturer for test are required to be stock models. However, they are tuned and adjusted to peak efficiency by factory engineers. These engineers are also present during the tests to keep the tractors functioning properly.

Random Selection

You may contend that it would be better to take new tractors at random from dealers' stock for these tests, since these are the tractors that the farmer buys. How-

ever, a moment's reflection will disclose why this process would not be practical.

One of the values of a test program of this type is the opportunity it furnishes to compare different tractors on the basis of impartial data. For this data to be comparable, it must be taken under similar conditions. If a tractor selected at random were adjusted to the same level of performance as any other tractor so selected, these tractors could be used for the comparison. Obviously, such uniformly-adjusted tractors are not available.

So the only practical method seems to be to set the level at the best performance possible. The only way to get this is to allow the factory engineering department, which designed and developed the tractors, to adjust and furnish the tractors for test.

Each tractor is tested for pto horsepower and for drawbar horsepower. Pto horsepower is measured by hooking the tractor to an electric dynamometer and measuring the power developed.

Drawbar tests are conducted by attaching load cars and pulling them around a concrete track. Necessary instruments are provided for measuring the power developed.

In both tests, a wide variety of data is taken, to enable the test

engineers to accurately measure the performance of the tractor. To insure that tractors are actually "stock," each tractor tested is disassembled, and all parts that have an influence on performance are carefully measured. The value of the Nebraska Tractor Test has become so widely recognized that some European tractor manufacturers have submitted tractors for test, even though they have no intention of selling the tractors in the United States.

Test Results

How can you obtain the test results and interpret them in respect to your requirements? Your county agent may have summary sheets available. Or, you can obtain summary sheets and individual test reports from the Tractor Test Laboratory, Department of Agriculture Engineering, University of Nebraska, Lincoln, Nebraska. These reports cover all tractors that have been tested.

Upon first inspection, either a test report or a summary sheet may look to be only a bewildering array of figures. However, do not despair. Although some of the figures are of interest primarily to tractor engineers and others in the industry, there are several of the figures which can be of value to you.

For the average tractor owner, the drawbar test is the best indication of how well the tractor will perform. Drawbar horsepower is more important than actual pull, because the amount of work that can be accomplished with the tractor is directly proportional to its power . . . assuming that it is used with the correct size of implement.

Engine Speed

When comparing the power of tractors, always check engine speed. Running an engine faster is the easiest way of getting more power from it, but the higher speed decreases its life.

During the drawbar test, maximum drawbar horsepower has to be maintained for two hours. To obtain this power most rubber tire tractors must travel about 5 miles per hour . . . even with ballast.

Maximum pto power is about 10 percent larger than drawbar horsepower because of the losses in the transmission and in traction. The pto test is also run for two hours at rated engine speed. All adjustments on the engine . . . such as governor, ignition, and carburetor . . . are made during this test and must remain unchanged during the other remaining tests.

The varying power tests show fuel consumption at various pto loads. The loads, which are varied

from maximum to zero, each last for twenty minutes. Fuel consumption for all six tests is average.

Studies show that the average farm tractor does not quite average using half its power. Thus, the average of the varying load tests is probably the best estimate of fuel consumption for a tractor. It will use more fuel during the plowing season than shown by test results, but on a year-around average, the tractor will use fuel at about the rate shown in the Nebraska Test.

Results of the maximum drawbar pull test can be easily misleading. For purposes of uniformity

this test is performed on a concrete track. Thus, you should not expect to pull as much on your farm.

In addition, most manufacturers put much more weight on the tractor during this test than you would normally want to use. Thus, when someone quotes a particularly high pull for a tractor be sure to find out how much weight the tractor was carrying. Most tractors tested at Nebraska pull approximately 2/3 to 3/4 of their weight, including ballast. Thus, if you were to remove 3,000 pounds of weight, drawbar pull would be decreased about 2,000 pounds.

The varying drawbar pull and

travel speed with ballast test shows the lugging ability of the tractor. As speed is reduced by applying drawbar load, the pull increases in steps over that at maximum power until travel speed is reduced by one-half. Maximum pull does not correspond to maximum horsepower because of high slippage.

This lugging ability is most important when plowing or doing other heavy drawbar work. When the plow hits a hard spot it is desirable to have the drawbar pull increase substantially as the engine slows. But it is even more important that the engine should "hang on," or continue to pull at half speed. Otherwise, excessive gear-

shifting may be required.

A Nebraska Test also shows tractor and engine specifications. Although this information may be available from your tractor dealer, it is listed in the report in a form that permits easy, direct comparison between different makes of tractors.

In selecting any new tractor, remember that there are many things to consider . . . including the quality and availability of service. Results of the Nebraska Tractor Test should not be the sole basis for your choice, but it is the best source for impartial information on such items as power and fuel economy.

NEBRASKA TRACTOR TEST 828 - JOHN DEERE 5010 DIESEL

The University of Nebraska Agricultural Experiment Station

POWER TAKE-OFF PERFORMANCE

Hp	Crank- shaft speed rpm	Fuel Consumption		Hp-hr per gal	Temperature Degrees F			Barometer inches of Mercury
		Gal per hr	Lb per hp-hr		Cooling medium	Air wet bulb	Air dry bulb	
MAXIMUM POWER AND FUEL CONSUMPTION								
Rated Engine Speed—Two Hours								
121.12	2200	8.058	0.462	15.03	185	56	75	29.200
Standard Power Take-off Speed (1000 rpm)—One Hour								
108.67	1880	7.018	0.449	15.48	185	55	75	29.180
VARYING POWER AND FUEL CONSUMPTION—TWO HOURS								
107.23	2290	7.222	0.468	14.85	180	56	75	
0.00	2373	2.359			168	56	74	
54.69	2339	4.544	0.577	12.04	177	56	75	
120.83	2200	8.017	0.461	15.07	185	57	75	
27.57	2355	3.391	0.854	8.13	172	58	75	
81.17	2314	5.762	0.493	14.09	180	59	76	
Av 65.25	2312	5.216	0.555	12.51	177	57	75	29.173

DRAWBAR PERFORMANCE

Hp	Draw- bar pull lbs	Speed miles per hr	Crank- shaft speed rpm	Slip of drivers %	Fuel Consumption			Temp Degrees F			Barometer inches of Mercury
					Gal per hr	Lb per hp-hr	Hp-hr per gal	Cool- ing med	Air wet bulb	Air dry bulb	
VARYING DRAWBAR POWER AND FUEL CONSUMPTION WITH BALLAST											
Maximum Available Power—Two Hours—4th Gear											
105.92	7759	5.12	2199	5.01	7.960	0.522	13.31	188	60	62	28.720
75% of Pull at Maximum Power—Ten Hours—4th Gear											
87.79	6043	5.45	2317	3.88	6.785	0.537	12.94	185	60	62	28.735
50% of Pull at Maximum Power—Two Hours—4th Gear											
59.28	3995	5.56	2340	2.75	5.202	0.609	11.40	186	58	71	28.815
MAXIMUM POWER WITH BALLAST											
67.82	14174	1.79	2335	14.82	1st	Gear		170	43	44	28.960
101.78	13839	2.76	2205	13.36	2nd	Gear		177	44	50	28.950
107.08	10369	3.87	2206	7.94	3rd	Gear		178	48	52	28.950
108.91	8040	5.08	2201	5.86	4th	Gear		180	49	53	28.950
107.79	6317	6.40	2199	4.54	5th	Gear		181	54	62	28.930
104.88	4624	8.51	2204	3.36	6th	Gear		183	54	62	28.930
101.70	3430	11.12	2209	2.38	7th	Gear		182	55	64	28.930
MAXIMUM POWER WITHOUT BALLAST											
108.02	7989	5.07	2201	6.22	4th	Gear		188	48	52	28.935
VARYING DRAWBAR PULL AND TRAVEL SPEED WITH BALLAST—4th Gear											
Pounds pull			8040	8323	8623	8802	8729	8708			
Horsepower			108.91	101.46	92.92	82.23	69.57	57.68			
Miles per hour			5.08	4.57	4.04	3.50	2.99	2.48			
Slip of drivers, %			5.86	6.01	6.31	6.31	6.46	6.31			

TIRES, BALLAST and WEIGHT

		With Ballast	Without Ballast
Rear tires	—No, size, ply & psi	Two 24.5-32; 10; 16	Two 24.5-32; 10; 16
	—Liquid	1710 lb each	None
	—Cast iron	440 lb each	None
Front tires	—No, size, ply & psi	Two 11:00-16; 8; 36	Two 11:00-16; 8; 36
	—Liquid	None	None
	—Cast iron	None	None
Height of drawbar		22 inches	23½ inches
Static weight	—Rear	12750 lbs	8450 lbs
	—Front	4250 lbs	4300 lbs
Total weight with operator		17175 lbs	12925 lbs

1. Maximum power delivered through the power takeoff at two different operating conditions: (a) At 2200-rpm engine speed (manufacturer's rated speed) for two-hour period. (b) Crankshaft at 1880-rpm engine speed (to produce standard pto speed of 1000 rpm) for one hour.

2. About maximum usable power that can be expected from similar models of this tractor.

3. Governored speed increased from 2200 rpm at maximum load to 2373 rpm at lowest load. This is well within the 10 to 12 percent increase considered to be the normal desirable maximum.

4. Maximum drawbar power measured while the tractor travels around the test track for two hours.

5. Maximum pull of 14,174 pounds does not indicate maximum drawbar power because of high slippage.

6. Drawbar power and pull were not limited by slippage in the higher gear ratios.

7. These figures show weather conditions at the time of test. Runs are made when thermometer is near average. Air temperature is regulated to about 75 degrees F. Power is reduced about 3 percent for each 1000 feet increase in altitude and about 1 percent for each 10 degree increase in dry-bulb temperature.

8. Each gallon of fuel used per hour produces this much power.

9. A good estimate of gallons of fuel used per hour under average conditions.

10. The greater the horsepower hours per gallon, the better the fuel economy.

11. Gallons of fuel used per hour at one-half of maximum pull.

12. A measure of lugging ability. Speed is reduced by increasing the load in steps until the travel speed is reduced by 50 percent. Note that greatest pull and greatest power do not occur at the same load.

13. Difference between these two figures shows amount of weight added; in this case it was 4,250 pounds. Although this is more than two tons of additional weight, it is less than one-third the weight of the basic tractor, and is by comparison a relatively modest amount of added weight.



Gayway Farm Notes

by HAROLD HAWLEY

DON'T MUFF IT

One of the more interesting possibilities in connection with our foreign policy, and our national agricultural policy, has to do with whether we undertake to make food available to people all over the face of the globe. Naturally, if the decision is made to export food in quantity (under whatever financial arrangements are decided upon) the American farmer would again get the green light as far as his production output is concerned.

This in itself would be a most interesting phenomenon. For so long have we consciously and purposely held national farm production below maximum that I doubt if anyone knows just how much could be produced if all restrictions were off and the price was right.

It's this price matter that concerns me most. If it is our government policy to buy and export food to hungry people, we could find ourselves with the government being the biggest customer. This in itself is no cause for alarm as

long as whatever programs we embark on don't suddenly cease before production could be adjusted downward. What is disturbing is that prices for commodities would tend to be at whatever level Congress and the Secretary of Agriculture decided — not at what the price would be in a free competitive market.

Why does this matter? Well, it's quite simple. In an economy already fed up with paying the tab for ineffective farm programs, and in a society which is urban-dominated, farm prices had best be set by the market system rather than by legislative or administrative decision.

An all-out "food for the hungry" program could be a real boon to American agriculture, creating an extra demand and freeing us from the costly and ineffective controls; it could, if we let it, be a real snare and delusion. It all depends on whether food for others is an agriculture program or a State Department program, and whether it is charged off against agriculture or charged off like any other

defense or peace effort. It also depends on the purchasing and pricing policies.

If the government merely goes into the open market and buys what it needs at whatever the market prices are, this is fine and dandy. If, however, food is bought at some pre-determined level, say at a percentage of parity or of world price, or a percentage of price in a base period, these purchases will distort the market price and put farmers in the position of producing food and fiber not for what it is worth but for whatever the government or some officials in it decide they will pay.

Ultimate Degradation

In this situation agriculture will soon find itself at the mercy of political pressure groups, all of whom would really prefer cheap food. From here it is an easy step to suggest that to keep farmers' returns high enough to encourage high production a little subsidy might be needed. There we have the ultimate degradation of the American farmer as between government determining its paying prices (rather than the market place setting the price) and political decisions determining the amount of subsidy to agriculture. The farmer will be completely at the mercy of non-economic decisions rather than guided and rewarded by the decisions made in the market place.

If it develops that our foreign policy decisions involve food for

the world's hungry, the most important step farmers can take will be to insist that purchases of such food be made competitively in the open market, with the government paying whatever it takes to get the goods. Any other course will lead us to complete reliance on the decisions and whims of others... who outnumber us and who like cheap food and care little that only with a free market system can farmers be guided to produce what is needed most urgently. Let's not muff this big important decision when the time comes.

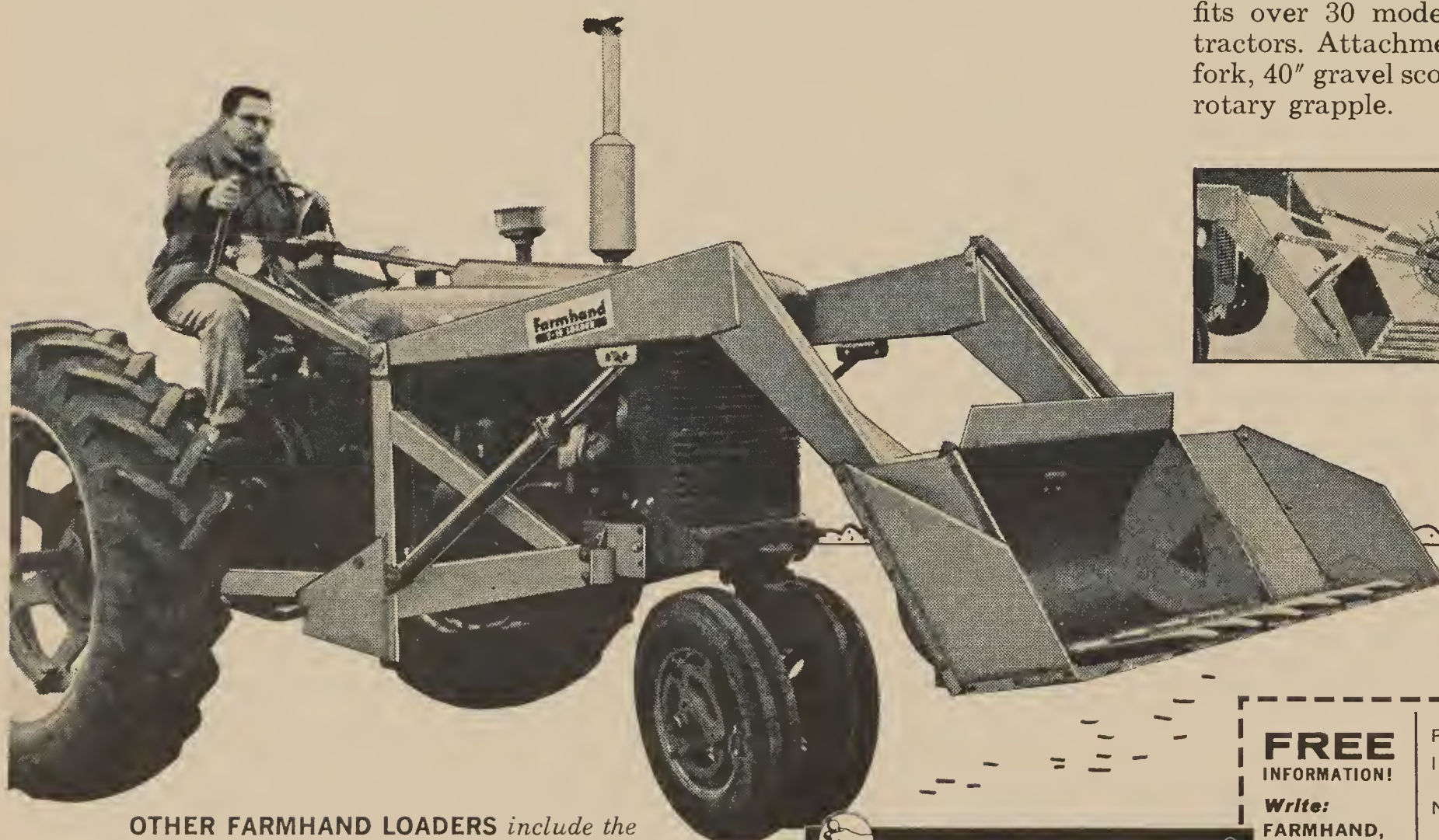
SWEET AS A ROSE?

There are several companies who make various mixtures of stuff which is supposed to mask odors. We are trying some of them by adding the prescribed amount to each load of manure. It's too soon to say that they are an unqualified success, but it's fair to say that they do cut down on the smell. One product (Zonemark) has a cherry odor and has been about as good as any we have tried. I can't say that the field smells like a cherry pie after we spread, but there is a lot less total odor than when we did not add anything.

There is no questioning the odor of liquid manure, but I believe the real problem stems from the fact that so many thousands of gallons can be spread in a day. It's as

(Continued on next page)

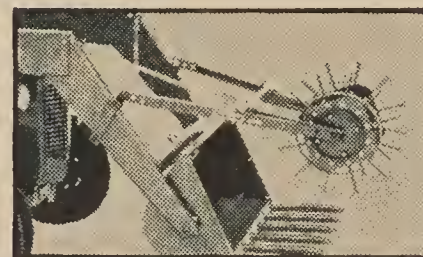
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though one cleaned and hauled 50 to 60 spreader-loads of calf pens in a single day! Just the fact that there is such a vast tonnage of manure (and odor) put on one field all at once makes for a problem which is worse than if only a load or two is spread.

DAIRY QUOTAS

I've been a little surprised and disappointed at some of the statements I've heard at farm meetings of various kinds this fall relative to the Class I base plan for dairy. For one thing, it seems apparent that we have a hard time learning from experience. On more than one occasion I've heard men say that they wouldn't go for the plan if the cut-back from present production was to be very large. They reason that if their cut is small they can live with it. Isn't it obvious that the amount of cut in production quotas at any future time could be large or small depending on someone else's decision?

Others have referred to this plan as a temporary adjustment plan — one we could soon discard. Again, haven't we yet learned that nothing is so permanent and nothing so hard to be rid of as "temporary" programs? We still have some which were inaugurated back in World War II days, and some we are still trying to vote out. Even after voting out the wheat program we didn't and couldn't be done with it! The last thing we should fall for is that soothing phrase that it's only "a temporary program."

Inasmuch as none of us here has had actual experience under a quota plan, it would seem fruitful to see how it has actually worked in areas where it has been tried. In this connection, it is important to distinguish between what farmers think of the programs and what the programs are actually doing for the farmers. This program is hailed as a production-curbing one — and it is fair to insist it be that if it is to be called effective.

Production Increases

In many southern states milk has been in short supply, with prices high. Class I quotas have been in effect for some time, with prices for pounds of base pretty well established. Because of the deficit supply situation and the corresponding high price, most farmers in those states seem to favor a Class I base.

During the period of the quota plan, milk production has been increasing. This is the point that we should consider; a Class I base program does not prevent production increases. It merely makes it more expensive for individual dairymen to make those adjustments and expansions which are appropriate to their particular situation.

It's obvious that the Order II market area isn't in a deficit supply situation. If we start a program with more milk than needed in Class I and II, plus a reasonable volume for safety, and if that

program isn't one which prevents growth and expansion, it can do little to solve the problem. Experience elsewhere suggests that farmers will buy and earn bases as they feel the need to grow at a much greater cost than at present. However, the extra cost apparently does not stop expansion — may be merely slows it. The extra cost of acquiring additional bases does, of course, wipe out profits for a time.

Fixed Costs

The next point which should be mentioned is that many costs in dairying are fixed, and the costs per hundredweight of milk can't help but increase if a quota system

lowers each man's output to 60 to 70 . . . or even 80 percent of his production in some historical base period.

Granted, the blend price of milk has been on the low side in relation to many farmers' costs of production, but there still seems to be a better way to improve dairymen's returns than by penalizing growth, change, and efficiency. This includes a better promotion effort . . . which means every dairyman carrying his share of the load. Too many today are content to ride on their neighbors' coattails.

The adjustment of cow numbers and production to needs has brought us to a point where the milk price keeps strengthening.

With adjustment and improvement working for us, it would seem like the worst kind of folly to desert the competitive free enterprise system for a plan which would tend to freeze the status quo in the industry rather than to let each producer adjust his business according to his best judgment.



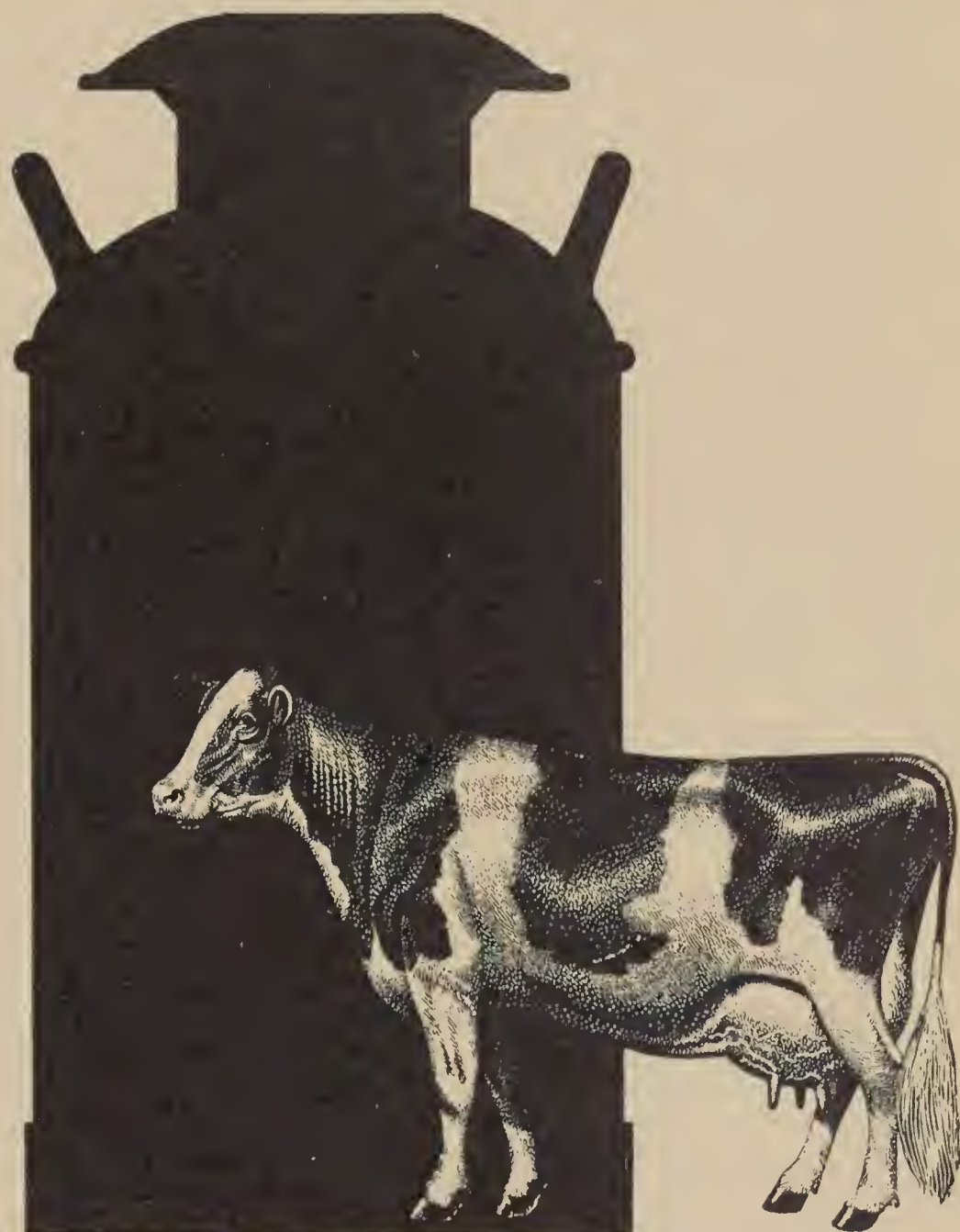
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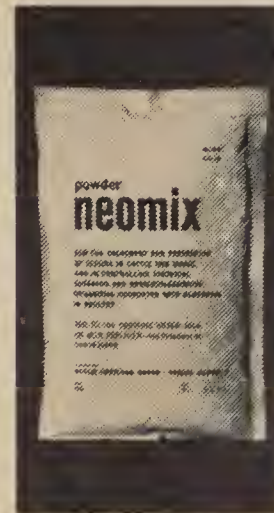
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Kalamazoo, Michigan

FARM INCOME TAX PLANNING

by Robert S. Smith
Cornell University, Ithaca, N.Y.

IF YOU THINK Income Tax planning in December is as out-of-season as picking tomatoes in February, then you're behind the times in your business management. Good farm managers have learned the value of tax planning in November and December.

A farmer, like other businessmen, has some flexibility in management of his income and expenses. If he allows his taxable income to fluctuate widely from year to year, he may lose the benefit of exemptions and deductions in the low years, and may be subject to high-bracket tax in the best years. The result is more total tax over a period of years.

In the last few weeks of his tax year, a farmer who reports on the cash basis can make many moves to bring his income more in line with past years and what he expects for the next year. He may want to decrease taxable income in the current year if things have been favorable, and it appears he will have much more tax to pay than usual. He may want to increase taxable income if it appears he will not have enough to use up exemptions and deductions, or if his objective is to maintain Social Security coverage at the maximum.

Some Adjustments

The case of dairy-cash crop farmer "Joe James" illustrates some common moves which can be made in leveling out income from year to year.

Joe James decided at the end of November to plan ahead for income tax. Joe reports on the cash basis and for the calendar year, as do most farmers. He made up a worksheet using his farm account book, which looked like this:

In sizing up the situation, Joe James found that the current year will be way above par for his business. Federal Income Tax on the \$6,900 of taxable income will be \$1,171. On machinery purchases this year, he will receive \$110 of investment credit to offset income tax. Good crops, improved milk production, and light machinery purchases for the year will result in income tax about double the usual unless Joe makes some moves in December.

Here are some expense adjustments he might consider:

Purchase feed which he will use in January and February, amounting to \$400.

Arrange for tractor overhaul in December which he has planned for February or March; estimated cost \$300.

Buy part of fertilizer needed for Spring; cost \$1,000.

Pay up all December bills for gasoline, breeding fees, and other open accounts before January 1; estimated total of \$150.

Cheek inventory of hardware, all supplies, to see what needs will be for next few months; replenish inventories before January 1; estimated cost \$250.

Review machinery inventory, decide what major items must be purchased within next 6 to 9 months. Decision might be to purchase item or items at cost of \$5,000 in December instead of in the period January 1 to July 1 of next year.

Machines purchased are eligible for 10-year depreciation, S-line, with first year 20 percent special and investment credit of 7 percent. Result would be increased depreciation of \$1,030 and \$350 investment credit against tax (one month S-line depreciation plus full 20 percent special).

	Amts to date Jan. to Nov. 30	Est. rest of year	Est. Year's total
Receipts			
Milk sales	\$16,900	\$2,000	\$18,900
Calves and other livestock held for sale	200	50	250
Crops, eggs, poultry sold	6,100	1,800	7,900
Miscellaneous farm income	550	50	600
Sale of cows raised for dairy \$_____ ÷ 2 =	500	400	900
Gain on sales of purchased livestock \$200 ÷ 2 =	100	-----	100
Gain on sale of real estate \$_____ ÷ 2 =	-----	-----	----
Gain on sale of machinery	-----	-----	----
Off-farm taxable income	1,250	-----	1,250
Total receipts	\$25,600	\$4,300	\$29,900
Expenses			
Cash expenses	\$15,400	\$1,000	\$16,400
Depreciation (last year's tax return a guide)			3,200
Total expenses	\$15,400	\$1,000	\$19,600
Adjusted Gross Income			10,300
Less 10% Standard Deduction			1,000
Sub total			\$9,300
Less \$600 × 4 exemptions			2,400
Estimated Taxable Income			\$ 6,900

"Net Farm Profit" = Adjusted gross income less capital gains and off-farm income (\$10,300 - \$2,250 = \$8,050).

All these changes would result in total increased expense of \$3,130.

In addition to adjusting expenses upward, Joe James could make the following adjustments to reduce expected receipts:

Postpone sale of remainder of bean crop (\$1,800) until after January 1. Market is not expected to change.

Postpone culling of four raised dairy cows until after January 1. Milk they produce in the next month will offset feed cost. (Sale price \$800, one-half of which would be taxable).

These changes would result in total reduced receipts of \$2,200.

If all these possible changes were made in receipts and expenses, Joe's adjusted gross income would be reduced by \$5,330, reducing his income tax for the year from \$1,172 to \$302. Further, he would then have a total of \$460 investment tax credit, more than enough to completely offset income tax of the year.

Because all of the adjustments considered would have the effect of increasing income tax in the following year, Joe might decide to follow a middle course, and make only enough adjustments to lower his income tax for the current year to the \$500 to \$600 range, which would be normal for his business.

An Example

Since personal deductions and exemptions are allowed annually, any credit for such exemptions not absorbed by current income is lost. Here's an example:

John and Mary Bell have three children. The family's adjusted gross income one year balanced out to exactly zero; the following year it was \$6,666 . . . or an average of \$3,333. Tax paid during the two years was \$500.

Jim and Jane Smith also have three children. Their adjusted gross income one year was \$3,333, and the same for the following year . . . also an average of \$3,333 for the two years. But their two-year income tax was exactly zero dollars!

The Bells paid more income tax than the Smiths even though they had the same average net income for the two years. In the first year they failed to use up the \$3,333 that tax regulations permitted them to earn before paying any income tax (\$600 for each exemption plus the 10 percent standard deduction).

Tax Management

In attempting to make adjustments in income or expenses for income tax or Social Security purposes, a farmer should remember that:

It is *never* good business to report anything but the truth on an income tax return.

An adjustment to minimize taxes can result in an unprofitable decision for the business.

Social Security is perhaps the best investment in survivorship and retirement benefits a farmer can make for himself and his family. Benefits are directly geared to level of reported earnings.

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Carthage—Faye's Boot Shop
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Centerport—Beach Work'n Play
Central Islip—Central Islip Agway
Central Square—Central Square Agway
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Chateaugay—Pearl Dept. Store
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Norwich—Rappaport Army & Navy
Under Price Shoes
Uriwin's Shoes
Odessa—Odessa Co-Op. Agway
Olean—Lester Shoe Co.
Oneida—Alfred Bargain Ctr.
Bartell Shoes
Oneida Shopping Ctr.
Oneida Shoes
Ontario—Hermann's Agway
A. Noto
Oswego—Vona Shoes
Langdon's Army & Navy
Owego—Langdon's Army & Navy
Oxford—Koz's Dept. Store
Oyster Bay—Bernstein's Dept. Store
Palatine Bridge—Wirthmore Stores
Palmyra—Edwards Shoes

Patchogue—Carl & Bob's Outdoor
Welner's Shoes
Richard York Shoes
Penn Yan—Penn Yan Agway
Smith Shoes
Perry—Perry Agway
Poestenskill—Bubie & Son
Port Chester—Levine's Army & Navy
Portville—Ralston Purina Co.
Potsdam—National Army Store
Poughkeepsie—Dutchess Shoe Fair
Preston Hollow—Radick's Gen'l Store
Pulaski—Moonan's Shoes
Ravenna—Forman's Clothing
Riverhead—Carl & Bob's Outdoor
Bomarc Army & Navy
Lipco Agway
Richard York Shoes
Rochester—Altier & Sons, Hudson & Titus
Altier & Sons, 1922 Monroe Ave.
Altier & Sons, Northgate Plaza
Altier & Sons, Pittsford Plaza
Altier & Sons, South Town Plaza
Altier & Sons, West Gate Plaza
Culver Shoes, Inc.
B. Forman Co.
Genesee Bootery
Katz Jr. Shoe World
Knipper's Bootery
National Clothing
Schmanke's Boot Shop
Skuse Bros.
Rock Glen—Edward M. Davis
Rome—Bar Mar Shoes
Barone Shoe Repair
Phillipson's Army & Navy
Rome Bargain Ctr.
Salamanca—Mason's Shoes
Sloan's News Room
Salem—Barkley's 5 & 10
Saranac Lake—National Army Store
Sayville—Sayville Sport Shop
Schenectady—Woodlawn Dept. Store
Selkirk—Selkirk Y.M.C.A.
Seneca Falls—Ceo & Rutz Shoes
Sherburne—Hodge's Shoes & Clothing
Sherman—Sherman Dept. Store
Sodus—Gardner-Sodus
South Westerloo—Charles Bogardus
Southampton—Shoe Haven
Southold—Lipco Agway
Spencerport—Community Shoe Service
Springfield—Mason's Shoes
Springville—Brown Shoes
Staatsburg—Myers Agway
Syracuse—Ames Shoes
Charney's Shop
Child Guide Shoes
De Julio's Army & Navy

Duane's Shoes
Dwyer's Jr. Shoes
E. W. Edwards & Son
Manny's
Men's Shoe World
Rochester Sample Shoes
Salina Shoes

Trout River—St. Onge Gen'l Store
Troy—Cooper's Shoe Specialist
Jim's Shoe Repair
San-Mar Shoes
Washington Shoe Repair
Tupper Lake—National Army Store
Utica—Berger's
Bartell Shoes
Revere Shoes
Sautter's Shoes
Shamy's Juvenile Shoes
Valatie—Standard Store
Valley Falls—Wiley Bros.
Vermontville—Rogers Store
Vernon—Vernon Army & Navy
Victor—Frank's Shoe Repair
Simond's & Sons
Walton—Walton Agway Store
Warrensburg—Brown's Shoe Store
Engle's Dept. Store
Warsaw—Van Slyke Shoes
Waterloo—Geo. McMahon
Watertown—Max Alpert
Watkins Glen—Hughey Boot Shop
Van Slyke's Shoes
Weedsport—The Winton Shoppe
Westerloo—Bob's Sport Shop
Whitehall—Whiting Army & Navy
Whitney Point—Barnes Gift Shop
Ken's Clothing
Point Shoe Box
Willson—Walker's Apparel Shop
Wolcott—Edwards Shoes

PENNSYLVANIA

Atlantic—Valley Mills
Bloomsburg—Agway, Inc.
Bowmansdale—Sidle's Hardware
Canton—Biddle Mens' Shop
Landon's Cedar Lodge
Clarion—Campus Shoes
Conneautville—L. A. Glessman
Corry—Carter's Family Shoes
Keystone Farm Store
Litz Shoes & Repair
Cresco—Weiskopf Shoes
Curryville—Curry Supply
Danville—Hubickl Shoes
East Earl—Harry M. Good
Elm—Bomberger's
Erie—Carter's Shoes, Liberty Plaza
Carter's Shoes, Perry Plaza
Frazee's Men's Store
Franklin—Bar Lee Shoes
Fredonia—McCartney Feed Mill
Girard—Girard Shoes
Grove City—Hancock's Shoes
King's Shoes
Hazleton—Price's E. & J. Shoes
Honesdale—Shoe Fair
Hughesville—Hill's Shoes
Johnsonburg—Anderson Shoes
Kane—The Hub Shoes
Knox—Smith's
Lake City—McCarty's
Linesville—Palmer Feed Co.
Lock Haven—Bottorf's Shoes
Meadville—Burnison's Shoes
Factory Shoes
Meadville Co-op.
Miller's Shoes
Milton—Famous Dept. Store
Montrose—Andre & Son
Morgan Army & Navy
Moscow—Moscow Agway
New Bethlehem—Roberts Men's Shop
New Wilmington—Thompson & Meteja
Oil City—Oil City Army Store
Reynoldsville—Economy Store
Ridgway—Miller Mercantile
Saegertown—Meadville Co-op.
Scranton—Shoe Fair
Sharon—Lustig's Shoes
State College—Agway, Inc.
Stoneboro—Mancuso's Shoes
Stroudsburg—George Shoes
George's Smart Footwear
Titusville—The Bargain Store
Towanda—The Hub Store
Warren—Valone's Shoes
Waterford—Malec's Village Fair
Wellsboro—Winter's Shoes
Wesleyville—Toby's Shoes & Apparel
W. Middlesex—Thompson & Mateja
Williamsport—Wilson's

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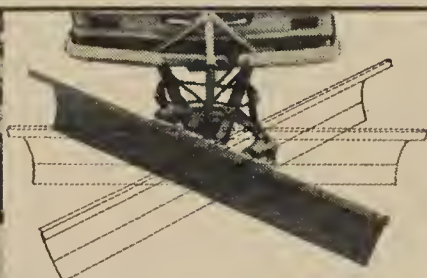
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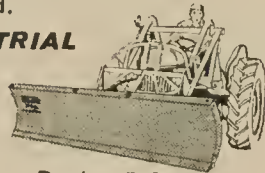


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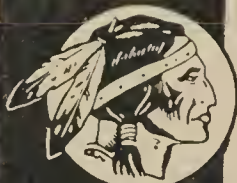
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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

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time science has found a new healing
substance with the astonishing ability
to shrink hemorrhoids and to relieve
pain — without surgery.

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relieving pain, actual reduction
(shrinkage) took place.

Most amazing of all—results were so
thorough that sufferers made aston-

ishing statements like "Piles have
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This substance is now available in
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the name *Preparation H*®. At all drug
counters.

Doc Mettler Says:

HEIFERS FOR EXPORT A VALUABLE CASH CROP

Thirty years ago a dairy farmer
needing extra cash above his nor-
mal income put in a few acres of
potatoes, raised some geese for
the Christmas market, or got out
some chestnut logs for railroad
ties. Much of this was done by
hand and in extra hours either by
himself or his family.

Today a dairy farmer has no
extra time, and if he did it would
be more profitable to spend it on
his cows than to try to compete on
the market with a commercial po-
tato grower, poultryman, or log-
ger. The need for extra cash is
always with us, however, and the
man who has the time and feed to
raise a few extra heifers can have
a nice "cash crop" by selling some
each year.

The main reason more people
don't make use of this ready-made
"cash crop" is the lack of an ob-
vious market . . . but the market
is available if you are willing to
meet its requirements, and have
the time and feed to raise the extra
heifers properly. First, of course,
you must keep up your registra-
tion papers. Most herds can have
a high percentage of registered
animals in a few years if the owner
keeps up registration. Of course,
the registration paper doesn't give
any milk, but the pride and extra
cash it can mean on each sale are
often overlooked.

Records A "Must"

Next, DHIA records are nearly
a "must." If an owner is going to
get ahead economically in mod-
ern dairying he must have records.
The information returned on mod-
ern DHIA and DHIR is of greater
value than just knowing how
many pounds of milk and fat each
cow gave. Why not make extra
use of it?

Proper sire selection and selec-
tion of calves to raise is easier
with proper records and the help
the A.I. associations are giving
today. To produce these extra
heifer calves you can't breed your
heifers to beef bulls. However, as
I stated in a previous article, if
you have a market for calves go
ahead and breed your good heifers
to purebred bulls, but watch them
when they calve.

Right here you are probably
saying: "But I do all these things
anyway, so what has selling a few
heifers got to do with veterinary
medicine? And there just isn't any
market!"

The market is Puerto Rico,
South America, Central America,
Europe, and even Africa. Here is
where your veterinarian comes in.
These markets pay much higher
prices than local markets, but
require all sorts of testing and
certification to cover their pur-
chases.

At first glance you might throw
up your hands and say: "I'd
rather tear up the registration

papers and sell them as grades at
a local auction for \$225 than sell
them for export for \$500 and do
all that paper work." Would you
really? You will find that your
breed association will give you
almost instant service on transfers
and inquiries on papers when you
tell them the animals are for ex-
port. Just let it be known with a
modest advertisement in your
breed paper that you have heifers
for sale which are registered and
out of dams with such and such
records, and out of whatever blood
lines; you will receive inquiries
soon enough. This may not even
be necessary. Just let it be known
at your local purebred club meet-
ing that you have extra heifers.
Agents for foreign buyers have a
hard time finding enough heifers,
and they keep their ears open.

What Is Necessary

When an agent approaches you
to purchase animals, find out just
what he wants, what records on
the dams, possible freshening
dates, etc. Then show him the
animals he wants. Before you give
him a price make sure you know
who pays for all the testing, charts,
trucking, and so on. If you don't
work through an agent and a
buyer contacts you directly, he
must find out from his embassy
the proper health requirements.
These are exacting, and sometimes
seem foolish to us here in the
United States, but these people
have their reasons, and they are
willing to pay good money for the
animals you have to sell to get
exactly what they want.

Before you ever have a heifer
to sell, your veterinarian will be
needed properly to vaccinate her
against brucellosis, and properly
to identify her as soon after four
months of age as possible. At the
same time, she should be dehorned
and extra teats removed. Register
your calves as soon after birth as
possible and make a note of all
tags, vaccination dates, and
tattoos on the registration papers,
or attached to them.

When a sale is made and you
know the health regulations, con-
tact your veterinarian immediat-
ly. If neighbors are selling ani-
mals for the same shipment, get
together with them so the same
veterinarian can test the entire
group in a short time. Often it is
necessary for the veterinarian to
order vaccine not regularly used
here in the Northeast. If a veteri-
narian knows far enough ahead,
he and his neighboring veterinar-
ians who also may have some
cattle to test and vaccinate for this
shipment can work together to
obtain vaccine and any unusual
testing material that may be
needed.

Ask the agent or the buyer to

(Continued on next page)

give you two copies of the health regulations and the buyer's name and address, typewritten if possible, one for you and one for your veterinarian. Foreign names and addresses are easily misspelled, and if a veterinarian has to copy all this over it means mistakes and extra expense for you. Your veterinarian must have the correct name of the buyer, because he has to submit at least eight copies of the health papers to his state and federal veterinary offices.

If anthrax vaccination is requested, your buyer or agent will have to make arrangements to have it done at the port of embarkation, since most states here in the Northeast will not permit this live vaccine to be used due to the danger of spreading it to local cattle.

Other than that, if given enough time, all of the other tests and regulations can be met with a little effort. However, be sure to contact your veterinarian in ample time.

The Tests

Any or all of the following tests, vaccinations, or requirements have been asked for on shipment of cattle to various countries:

Thirty-day TB and brucellosis tests on individuals to be shipped plus, at times, accredited herd for TB and certified herd on brucellosis.

Tests for leptospirosis, vibriosis, trichomoniasis, Johne's disease, anaplasmosis and mange.

Vaccination or inoculation against anthrax, anaplasmosis, leptospirosis, shipping fever, black leg, virus diseases and rabies.

Statements that any or all of these diseases, plus ringworms, screw worms and a few others

don't exist on the farm or in the area.

Bulls often must have semen checked for both motility and abnormality. Heifers may have to be checked for pregnancy. Some countries require two ear tags in all animals regardless of tattoos. Milking animals are rarely shipped, so mastitis is seldom considered. On all foreign shipments your veterinarian must warn you to use a clean, disinfected truck to transport the animals, and he must note this on the health chart.

When the veterinarian arrives to test these animals, have them tied individually in stanchions or with halters. He may need to use four or five different syringes on each animal. If he can go from

one animal to another first with one inoculation and then another it will save time and save you money. Ear tags must also be checked and double-checked. One number or letter out of the way can stop a whole shipment at the dock. Check your registration papers for mistakes, too. Your breed association can make changes before shipment... but not after.

Plan Ahead

Above all, plan ahead. All these things have to be done correctly and take time. If a holiday is coming up on which state and federal offices are closed and mail doesn't move, don't count on sending out shipments at that time. Often it is better to deliver charts

personally to the offices concerned instead of relying on the mail. This costs you money, so figure on it in your price to the buyer.

As a matter of American pride and just plain good business, don't ship to a foreign country a heifer that you wouldn't sell to a neighbor. These people don't mind paying the price, but they will not be back for more in the same place if they are treated badly.

Red tape? Yes, it certainly is. But is there any money in farming today that comes easily? Those five heifers you could sell two years from now could mean the cash to send a son to college for a year, or to take you and your wife on an American Agriculturist tour of Europe. Wouldn't it be worth it?

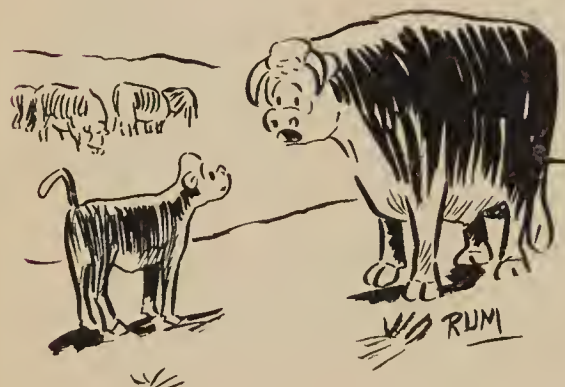


WHAT IS 1 PPM?

Most people do not realize what a part per million really means. Unfortunately, some substances are accumulative which makes matters worse. We should have some idea of what some of these things mean or represent.

Someone recently put together some facts and figures to indicate what one part per million really represents under various conditions. Here they are:

- 1 ounce of sand in 3¼ tons of cement.
- 1 inch is 1 ppm of 16 miles.
- 1 minute in 1.9 years.
- 1 ounce of dye in 7,530 gallons.
- 1 square inch in 1/6 acre.
- 1 pound in 500 tons.
- 1 cent in \$10,000.
- 1 ounce of salt in 62,500 pounds of sugar.
- 1/6-inch thick in a pile one mile high.



"It's time to tell you about the birds and the bees... and artificial insemination."

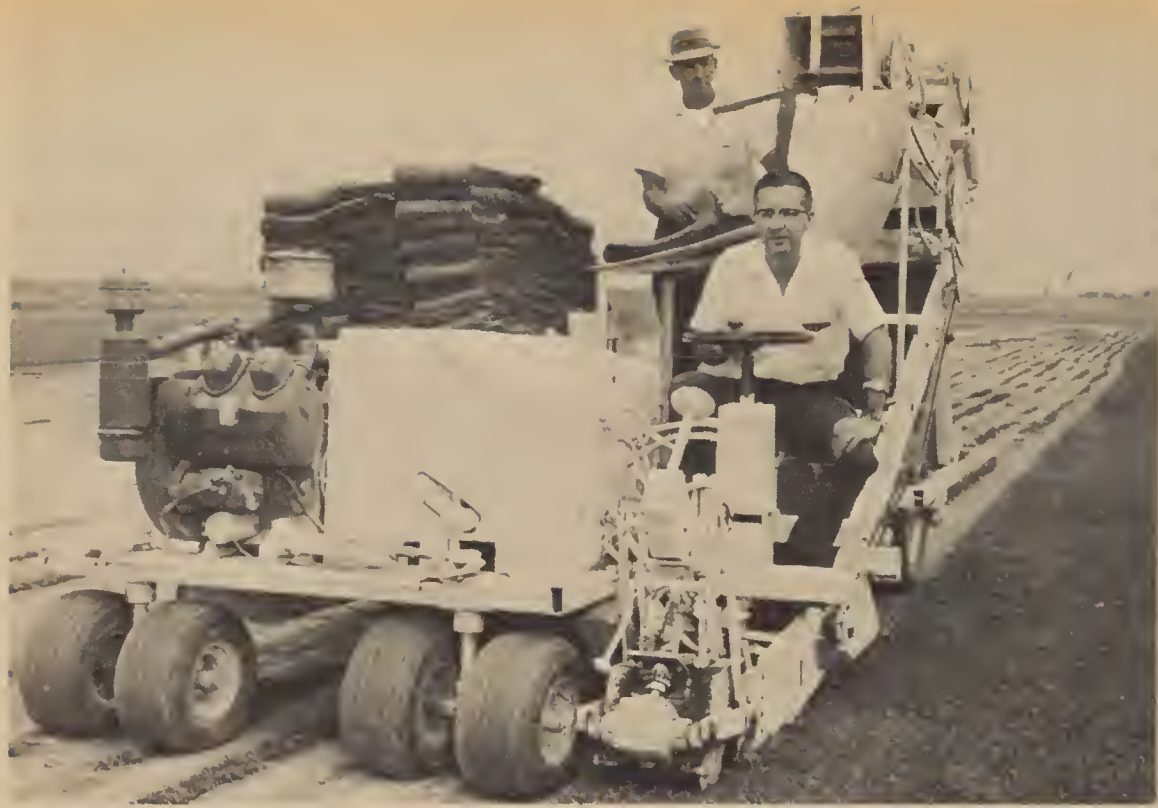
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Golden Isle Citrus Pulp is a dry feed that absorbs water quickly, encourages your cows to drink more water and produce more milk. In 1958 the Weaver Dairies in South Florida were milking 700 cows. Today, they're milking 540 cows and producing as much milk as they did in '58!

Order Golden Isle Citrus Pulp for your cows today and watch their production increase. Order through your feed dealer or through our sales agent, Feed Sales, Columbia Nitrogen Corp., 315 Madison Avenue, Tampa 2, Florida. Citrus Products Sales, Minute Maid Company, Orlando, Florida.





SOD HARVESTER

A new sod harvesting machine, the first successful one of its kind in the world, has been developed by Princeton Turf Farms, Inc., Cranbury, New Jersey. The harvester, which cost \$100,000 and represents three years of research and experimentation, has cut up to 100 square feet of sod per minute in preliminary trials, far faster than the present manual method.

The machine is operated by an hydraulic system, which is in turn powered by a 60 horsepower air-cooled engine. One man drives the harvester and three others stand on a rear platform folding and stacking the one foot by four feet sections on a pallet. Credit for the

idea goes to Wiley Miner, who started Princeton Turf Farms in 1959, and today is the largest sod producer in the State.

In 1962, Miner began work on a harvester. Two years and two unsuccessful attempts later, he contacted Lynn Johnson, a young agricultural engineer, at that time working for a small farm machinery manufacturer in Salina, Kansas. Johnson came East last July and set up a machine shop and engineering office off Milford Road in East Windsor Township.

Two machinists, Floyd Cole of Hamilton Township and Ed Bitler of East Windsor Township, worked with Johnson for the past 12 months, designing, building and rebuilding the harvester.



IRRIGATION THE ANSWER

by Amos Kirby
New Jersey Editor

Irrigation may be the answer to hay production on dairy farms in the drought-stricken Northeast. It has been tried and proved successful on a number of New Jersey farms. Dairymen who irrigated forage crops have come through with greatly-increased yields, and their barns are well stacked with some top-quality hay.

Let's look in on the 196-acre operation of Edward C. Stow and his son Edward Jr., Spring Meadow Farm, Marlton, Burlington County.

Ed has 80 acres of alfalfa, irrigated four times this year, and he estimates that he has averaged three-quarters of a ton at each of the five cuttings. Part is used for greenchop. When I visited his farm in late September he was still cutting hay that stood over two feet high, and that was every bit as good as the first cutting in May. Agricultural agent Dan Kensler is convinced that Mr. Stow is a bit conservative; in the five cuttings a more realistic yield would be at least five tons or even more per acre.

Irrigation is nothing new for

the Stows. They started it in 1946, and have expanded both in acreage and in the size of their pond. The original 40 x 200-foot pond is now 100 x 1200 feet, with an estimated refill capacity of 200,000 gallons every 24 hours.

The alfalfa fields are irrigated immediately after each cutting with about two inches per acre. They are fertilized yearly with 800 pounds of 0-15-30, and Ed gets good yields for eight years before reseeding.

The 60 head of milking cows are kept in a 3 to 4-acre pasture lot. During our visit they were just completing a 20 x 60-foot silo to be filled with corn grown on the farm and on some adjacent land.

Other Dairymen

We checked with two other dairymen who have been experimenting with irrigation on alfalfa. Carl Stecker and son Raymond, of Sewell, Gloucester County, have six acres irrigated, and from their five cuttings they estimate better than six tons of hay per acre. Last year they had six cuttings and no harm to the field. They apply 1½ to 2 inches of water after each cutting following the first cutting late in May; they also apply a high phosphorus-potash fertilizer.

My next call was on Harrison Myers, Woodstown, Salem County. It has been his experience that yields have been doubled on irrigated fields. He applied about an inch at each application, and has had four cuttings. Here again there are no accurate weights on actual tonnage; the strong point is that yields have been doubled with irrigation.

These three dairymen from widely-separated areas are all convinced that they have had better-than-average yields compared with yields in years of normal rainfall.

A big question in the Southern New Jersey area where irrigation is now big business is: "What does it cost to irrigate an acre of hay, corn, vegetables, or fruit?" There are many factors . . . and as many answers . . . varying with the crop and nearness to water.

Carleton Miller, near Woodstown, a neighbor of Harrison Myers, has some estimated costs. He irrigated seven acres of sudan grass with two applications. It cost him \$400 to dig the pond, and he invested \$2,100 in pipe and a pump. Again no accurate costs . . . the results speak for themselves. On the seven acres he had all the feed that 35 head of cattle could eat and then some. Mr. Miller has estimated that he will have his investment on irrigation equipment back in four years, all from a seven-acre field in sudan grass. With good alfalfa hay at \$50 a

(Continued on next page)



THINKING ABOUT A NEW FARM BUILDING?

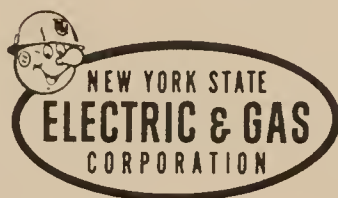
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ton or more, and 2½ tons extra per acre, irrigation may be a step towards higher production even in years of normal rainfall.

PEACH TREE PROBLEM

A partial solution to South Jersey's peach tree problem has just been released (October 18).

The survey, centered in the four counties of Burlington, Camden, Atlantic and Gloucester and compiled by the State Department of Agriculture, embraced 63 orchards, 200 blocks in these orchards, and over 75,000 trees. It reveals that the heavy tree mortality has been caused by winter injury, tree cankers, and borers. In the four-county area, 15.4 percent of the trees were dead, 59.3 percent showed winter injury, and 76.6 percent were cankered. In the problem blocks, 30.4 percent in Atlantic County were dead, 86 percent in Camden County showed winter injury, and 94.1 percent in Burlington County had canker.

The next step is to determine what caused the winter injury. Could it be due to the three years of drought (1961-'64), the presence of nematodes, or has cold winter weather with alternate thawing and freezing been the culprit. Studies on nematodes are still underway.

If winter injury is the problem, do soil types have a bearing on why trees die prematurely, and will the industry swing away from the light sandy soil to the heavier types where the winter injury has been less of a problem?

CHEMICAL WEED CONTROL

Another time-consuming, tedious, costly farm operation is on the way out. From Brad Johnson and Dr. Don Schallock, vegetable and weed authorities at the College of Agriculture, comes a report of a positive breakthrough on weed control in 1965.

By using approved weed killers one may secure up to 95 percent control, depending on the crop and the manner of application. Most promising are tomatoes, strawberries, peppers, and sweet potatoes. Two of the new products that are gaining acceptance are Diphenamide and Treflan.

FEED STRETCHERS

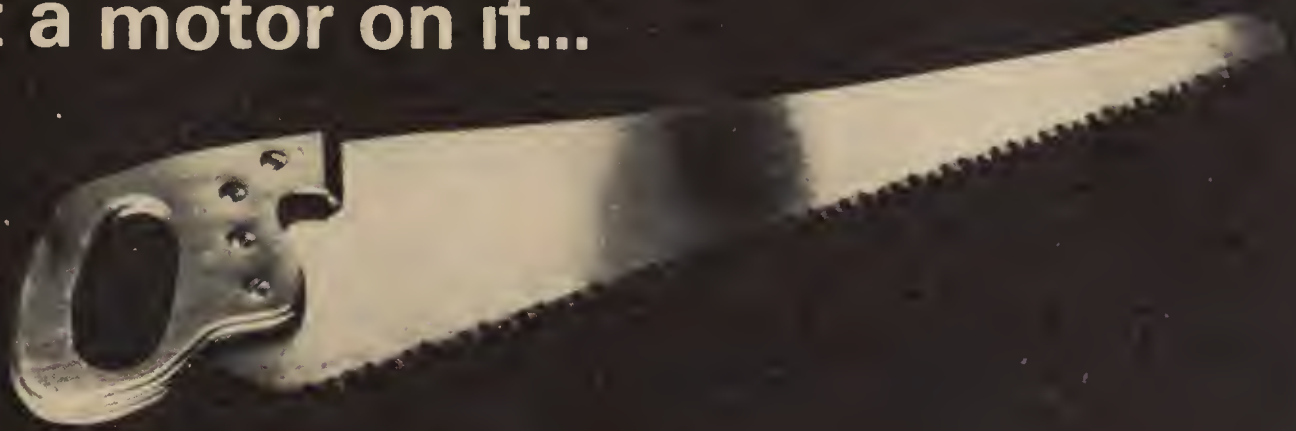
Looking for a feed stretcher for that limited supply of hay and roughage to carry you through the winter? Frank A. Wright, Extension dairy specialist, recommends the use of molasses.

This sticky substance has many advantages. It is economical... costs range from \$27 to \$40 per ton. Molasses also makes off-quality roughage more tasty, and when the ration is balanced out it has TDN that makes it an economy food even if the silo is full and there is hay in the barn.

Mr. Wright also suggests installing a tank to hold molasses. A 4,000-gallon tank with pumps and pipe will cost about \$650. Then, buying a tankful of molasses weighing 24 tons, one has a saving of \$300 through the bulk price.

American Agriculturist, December, 1965

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put a motor on it...**



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Frenchtown—Frenchtown Washer Repair
Lakewood—Lakewood Hardware
Little Falls—Little Falls Agway
New Market—Bud Paint & Tool Rental
Riverton—Riverton Farm & Garden Supply
Trenton—Bill Blackwell's
Trenton—Mercer Hardware

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Baldwinsville—Farrell Plumb. & Heat.
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Bath—Murphy's Bath TV & Svc. Co.
Bayshore (L.I.)—Arthur J. Rauff
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Bridgehampton—Valley Saw Co.
Bronx—Sunport Products, Inc.
Byron—Gillett's Hardware
Canisteo—Home Builders Supply & Hwde.
Center Moriches—Atlantic Tool Co.

Chittenango—Fred Ryan
Churchville—Ehrmentraut Hwde.
Clinton—Clinton Farm Supply
Corona (L.I.)—Alcan Machinery
Cortland—Cain Tractor & Implement
Deep River—Francis Nichols
Deposit—Ken Scott
Endicott—Halpin Implement
Fabius—Fabius Hwde. Co., Inc.
Fairport—Crosby Equipment Co.
Fulton—Turner Rent-Alls
Gowanda—Babinger Lawn & Garden Equip.
Greene—Burpee's Hardware
Hamlin—James Burke & Son
Hicksville (L.I.)—Comark Corp.
Hicksville (L.I.)—Malvese Mowers & Equip. Inc.
Holley—Holley Farm Svc.
Honeoye Falls—Kingston Farm Machinery, Inc.
Islip (L.I.)—Marlan's Lawn Mower
Ithaca—Flowerfield Greenhouse & Gardens
Jamesville—Flanagan Equip. Co.
Lake Pleasant—Love Enterprises
LeRoy—F. W. Bickford, Inc.
Lindenhurst—Liebel Hardware/
Lockport—Walter Kohl Welding
Lockport—James O. Rignel Co.
Lockport—Taylor's Hwde. & Farm Supply
Long Island City—Edward L. Flaherty Co.
Long Island City—Mahoney-Clarke, Inc.
Medina—Earl Loades & Sons
Moravia—Slade & Sovocool
Munnsville—Wesley Boylan Co.
New Hartford—Lutz Equip. Co.
New Hartford—Lutz Radio & TV
Newark—Sibley Lindsay & Curr Co.
New York—Capiton Electric Tool Co.

New York—Paul Silken, Inc.
New York—Thalman Equip. Corp.
Niagara Falls—Stoelting Machine Co.
Nineveh—Charles A. Juriga
North Lansing—Woods Ford Tractor Sales
Oneonta—Murdoch Hwde. & Implement
Oswegatchie—Trudo Lumber Co.
Oswego—Cloonan's Small Engine Svc.
Richfield Springs—Frank G. Leslie & Sons
Rochester—John P. Halpin & Sons
Rochester—Power Specialists
Rochester—Rochester Outboard Motor Co.
Rochester—Sibley Lindsay & Curr Co.
Rome—United Rent-Alls Rome
Rush—Miller Pontiac, Inc.
Sandy Pond—Bubel's Marine
Schenectady—Woodlawn Hardware
Sherburne—Roland R. Jones
Silver Creek—Hanover C & E
Skaneateles—Bobbett Imp. & Tractor
Sodus—Sno-Gras Equip. Co.
South Wales—Valley Wide Sales Center
Springville—S & N Sales & Service
Syracuse—Midstate Contractors Equip. Co.
Syracuse—Reliable Farm Supply
Utica—Cornhill Sporting Goods
Victor—Victor Coal & Lumber Co.
Walton—Robert W. Parsons
Wappingers Falls—Rowe-Rutledge
Warwick—Frank's Mower Service
Watertown—White's Lawn Supply
Weedsport—Otis Jorolemon & Sons
Westfield—Bostwick Farm Supplies, Inc.
Whitney Point—Forrest Tractor Sales & Svc.
Williamstown—Skinners Garage
Wilson—Ray Thilk Sales & Service

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Purina Cattle-Plus is one of the best—most effective Vitamin A feed supplements you can give your dairy cows. Few products of its kind contain per pound—5,000,000 units Vitamin A, 1,000,000 units Vitamin D, PLUS organic iodine to help prevent foot rot and lumpy jaw and are as economical to use—only 10¢ to 12¢ per head supplies enough vitamins for top growth and feed performance.

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- provide enough Vitamin A to help protect cows and calves during periods of stress.
- help keep calves free from scours.
- Purina Cattle-Plus is in convenient 10-lb. bags from your Purina dealer.

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Checkerboard Square • St. Louis, Mo.

PURINA HEALTH AIDS

THE OMNIBUS FARM BILL

by Hugh Cosline

FOR ONE thing, the farm bill shows a change of direction in government policy away from high price supports and toward direct payments to farmers from the Federal Treasury . . . in essence the old Brannan Plan.

Reasons given for this change are:

- (1) To cut government costs. This may or may not result. The future will tell the story.
- (2) To let market prices seek a supply-and-demand level, with U. S. Treasury checks to farmers to increase farm income.
- (3) To cut production. Results here are problematical.
- (4) A possible objective is to help old and unsuccessful farmers to "get out" of farming.

Direct Payments

The direct payments to farmers come about in these ways:

Cotton growers may get as much as one-third of their returns in government checks, and checks will also go to cooperating growers of wheat, feed grains, and to those who sign up for the Crop-land Adjustment Program (similar to the Soil Bank Program). In this latter group one estimate is that a million farmers will get checks for five to ten years, the life of contracts.

Not everyone is happy with these direct payments. Opponents fear that a future Congress may reduce or eliminate these payments. There is some apprehension over possible political pressures. It is a definite step away from the free enterprise system.

Another hazard is the fact that the legislation will be implemented by regulations set forth by heads of bureaus who are appointed rather than elected.

Total cost of program in '66 has been estimated at \$4 billion, with \$3 billion going to farmers in the form of direct payments from the U. S. Treasury.

Meeting Objections

Objectives of the Farm Bill are expected to be met by several propositions:

For example, there is the Crop-land Adjustment Program, with the goal of putting 8 million acres into the Program annually for the next five years, taking a total of 40 million acres out of production.

Farmers with acreage allotments for one or more of the crops designated by the Secretary of Agriculture, and who sign a contract running from five to ten years to put the entire acreage of one of these crops in the Program, will get certain government payments. The total acreage in a county permitted in the Program will be limited, so as not to injure the economy of the area.

Land must have been owned for at least three years except where it was inherited, or operated and controlled for the past three years.

After a farmer has signed up to put entire acreage of a price-supported crop in the Program (with government payment up to 40 percent of value of probable crop) other land owned by him becomes eligible, but for a smaller payment.

Payments will be larger where the owner agrees to permit public use of land for hunting, fishing, or recreation. The Program is likely to make it more difficult for farmers to expand by buying land.

The Program will be administered by ASCS, and you should check at your county office for sign-up period and other details. Eventually the yearly cost of Crop-land Adjustment Program may be \$1 billion a year. It's rumored that this program will eventually be substituted for diversion programs for wheat, feed grains, etc.

Another Feature

Another new feature of the Act is the machinery whereby dairymen under a Federal marketing order can elect to produce milk under a two-price system. If adopted, a dairymen would get the Class I price for a base amount to be set, and the manufactured product price for as much more as he cared to produce.

A group of dairymen can request an amendment to the order governing their area. Hearings will be held, the Order Administrator and the Secretary of Agriculture will suggest an order amendment which will be discussed and explained, and finally voted on by dairymen.

The vote will be by individual dairymen, a two-third majority will be required to adopt it, and failure to adopt it will not endanger the order itself.

When an amendment is proposed, its provisions will go a long way in determining whether you will vote "yes" or "no." We plan to keep you informed.

The Wool Program

The wool program is extended through 1969 with an increase in the support price. At present the support price is 62 cents per pound. In 1966 the support will be about 65 cents.

The Act also authorizes the Secretary to use Commodity Credit Corporation funds to buy dairy products (except fluid milk) to meet requirements for domestic relief in the U.S., foreign distribution, and other authorized programs when CCC holdings are inadequate.

Wheat Expectations

Wheat growers are expected to get some \$200 million more income. However, we are told that there is no guarantee of a "blend" price of \$1.84½ a bushel. For the 1966 crop, support price for wheat for domestic use will be based on parity as of June 1966. And after 1966 there are certain to be

(Continued on page 21)



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Dr. Naylor's UDDER BALM

changes which growers may or may not like.

On feed grains the basic setup continues for four years, with some changes. The USDA can manipulate the support price and loan rate to make it more desirable for growers to "join." In other words, "Uncle Sam knows best what farmers should have."

Changes include:

The Secretary can decide to make payments on only a part of a crop planted.

The Secretary may permit growing soybeans instead of feed grain on permitted feed grain acreage.



WINTER CHECK POINTS

(1) Check the ignition system, points and plugs. If your engine has a magneto, check that too. And don't forget to check the fluid in your tires to prevent freezing.

If new spark plugs are needed, be sure to get the proper model for your engine. Your serviceman can check the proper timing for the whole system.

(2) The carburetor and fuel system must be clean. Go over it, clean the sediment bowl, check the system for leaks.

(3) Always fill the fuel tank after using the tractor in cold weather. Moisture in the air forms frost inside the tank as well as outside it; when the frost melts, you have water in the fuel system — even with a de-icer in the fuel.

(4) You'll get winter blend of gasoline when you need it from your supplier. Gasoline quality is carefully controlled.

(5) The generator must be in good condition. Check the brushes; see that the generator charges properly, and that the voltage regulator, if any, is operable. A well-charged battery is not in dan-

ger from freezing; the solution in a 3/4 charged battery won't even begin to freeze until 62° below zero! But a run-down battery can freeze and break the case.

The starter doesn't usually need much attention, but your serviceman can check it.

(6) The weight of oil can be extremely important on a cold day. Winter oil flows more freely at low temperatures than summer oil, saving on the battery. A good grade of winter oil is important for easiest starting.

This applies to the oil in an oil bath air cleaner, too. Best starting requires proper air flow through the carburetor, so use the recommended weight of oil in the air cleaner also.

AI STUDS TO MERGE

SIX COOPERATIVE AI studs serving almost all the Northeast will merge January 1, 1966. They include New York Artificial Breeders' Cooperative (NYABC), North East Breeders' Cooperative (NEBA), New England Selective Breeding Association (NESBA), New Hampshire-Vermont Breeders' Association, Maine Breeding Cooperative, and Central Vermont Breeders' Cooperative. The directors of all these organizations have approved a merger proposal and recommend it to their memberships.

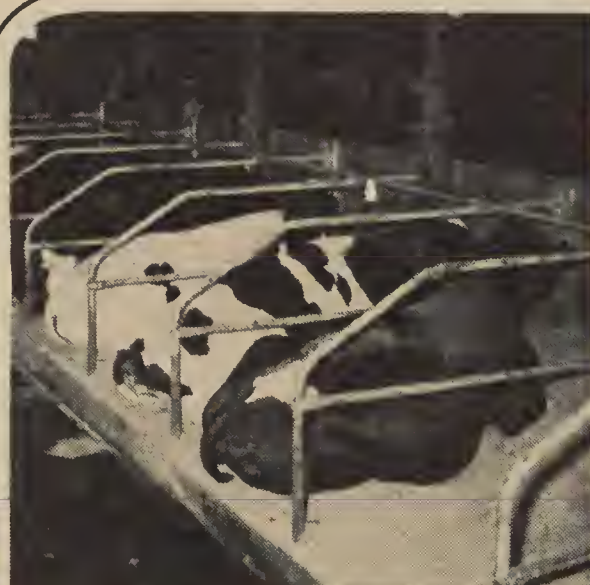
It was NEBA that most recently foretold what was to come when it was formed by the merger of four AI cooperatives about a year ago. And, of course, the six organizations now planning corporate fusion have been working closely together for some time on sire-proving and semen-exchange programs for the dairy cattle breeds other than Holstein.

The new organization is to be called Eastern Artificial Insemination Cooperative, Inc., and will be headquartered at the Ithaca, New York facilities now owned by NYABC. There will be 16 directors on the board of EAIC . . . eight from New York, four from New England, and four from the Pennsylvania-New Jersey area.

The existing service programs and fees will be retained for a time in the various areas covered by the existing six co-ops. Over time, however, procedures will become more standardized.

Why the merger? Cow population in the Northeast has been declining for a number of years, and rising costs have forced AI co-op leaders to look for economies. It's estimated that, after initial extra costs of making the change are past, operating savings of \$200,000 per year will be realized. The overhead will be reduced . . . smaller investment in facilities and real estate, and fewer personnel than once hired by the six separate co-ops.

In addition, the move will offer the potential of a stronger sire-proving program . . . because of increased cow numbers being bred by one outfit.



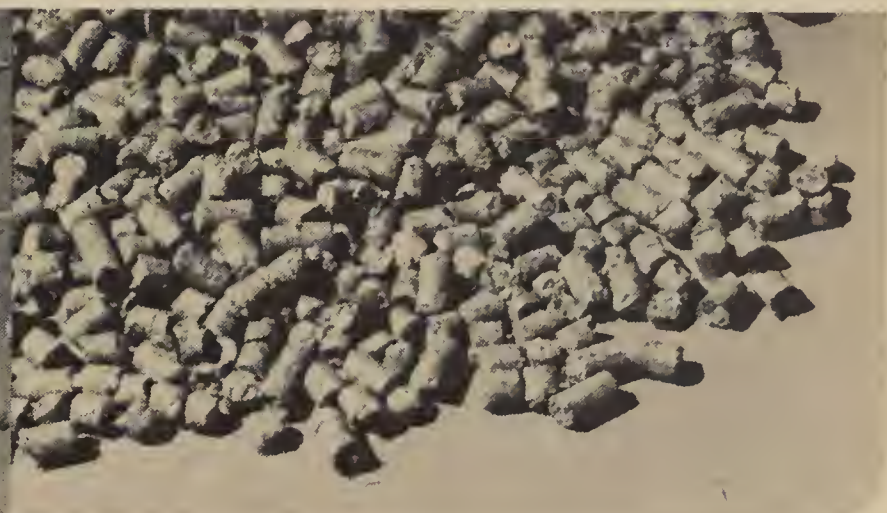
1. To freestalls or labor saving conventional barns . . . for more comfortable cows, fewer man hours per cow.



2. To milking parlors . . . for greater milk sales per man and per man hour, with less effort.



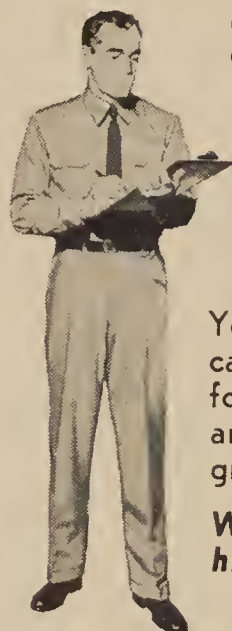
3. To heavier silage or haylage feeding . . . for more TDN or more Net Energy per acre, harvested and fed mechanically at lower cost.



4. To Beacon high energy milking rations . . . for increased palatability, good flow characteristics, high milk production and top income over feed cost.

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KENDALL Filters deliver all the speed you'll ever need. They're tough, uniform, with no thick spots to clog, no weak spots to tear. They've got extra capacity to handle large quantities.

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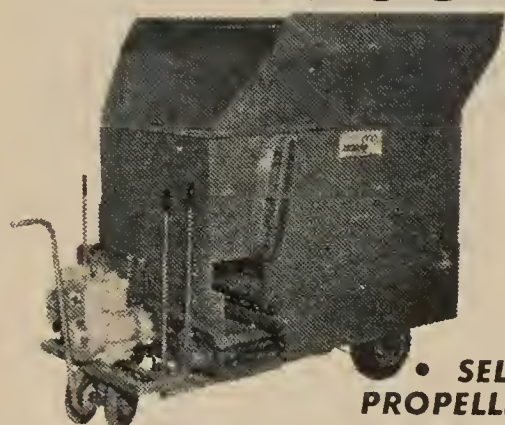
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Automates feeding of ensilage or green chop in the dairy barn. Fills directly from silo or forage wagon—distributes evenly, quickly, effortlessly, 35 bu. capacity!

Reversing 2-speed transmission—low speed for feeding, high speed for quick return to feed source. Windrows or mokes separate piles. Short turning radius makes unit very maneuverable and easy to operate.

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Food For The Spirit



by Robert Clingan

CHRISTMAS

To use the phrase of an eminent sociologist, it is far too easy to be "other-directed" in the observance of Christmas.

We fall into the patterns suggested by the commercials, we reciprocate in our giving in a calculated sort of way, we follow the customs of our community and our friends, until we resemble pieces of soft dough bearing the imprint of the same cookie cutter. We cry brave words of rebellion against standardization, commercialization, impersonalization . . . but where these issues touch our lives at Christmas time we are most willing to conform.

It is time we recovered our integrity and became truly ourselves in the observance of Christmas. And the first step is to remember what it is we are really celebrating. Years ago our fifth-grade teacher wrote across her blackboard at the beginning of the Christmas season: "Gifts are usually brought to the person whose birthday it is." She refused to explain her sentence . . . and as we struggled for its meaning we grasped something of the insight she was trying to share.

The second step to escape the futility and find the meaning of Christmas is truly to find what

meaning the birth of Christ has upon the world and upon our individual lives. It would open our hearts, our hands, and our pocket-books to the world's hungry and needy who can give us so little in return . . . and who may even resent the fact that we have so much to give and they have nothing to return.

As we re-examine our observances we find much that truly belongs . . . the Christmas carols; the nativity scenes or creches that adorn store windows, village squares, and private homes; the Christmas cards; the Christmas baskets for the poor; the Salvation Army kettles and all their "boiling" brings; gifts given and received as expressions of genuine love and goodwill. Nor should we overlook the Christmas pageants and the worship services of the churches that remind us that this birth is nothing less than God incarnate.

We may find ourselves reviving the ancient practice of lighting an Advent candle each of four Sundays before Christmas. New types of observances may be created by the imaginative and the adventure-some. For example, one young mother baked a cake, put candles on it, and had her children sing "Happy birthday, dear Jesus." These children knew whose birthday it was!

May the deeper meanings of Christmas possess our lives this season. May our observance be the definite choice of that which fittingly portrays the birth of Christ and its meaning to us and to the world.

BEEF SHORT COURSE

Carcass evaluation, breeding, feeding, management and animal health are some of the topics that will be given special emphasis at the 15th annual Beef Cattlemen's Short Course scheduled at Cornell University for January 24-28. Highlighting the list of speakers will be Dr. Earle W. Klosterman, in charge of beef cattle research at the Ohio Agricultural Experiment Station, Wooster, and Dr. R. H. White, Director of Armour & Company's Beef Cattle Improvement Research program. Others appearing on the program will include breed association representatives, successful producers, marketing specialists and college personnel.

Both purebred and commercial producers were considered when the program was prepared. Although special emphasis has been given to subjects of interest to people new in the cattle business, anyone interested in beef production should find the program worthwhile. Ladies are always welcome. So are "out-of-staters."

For copies of the program and additional information, get in touch with your county agricultural agent or with M. D. Lacy. A registration fee of \$10 will be charged to pay for the cost of the Short Course. This fee may be paid at time of registration,

however, application for enrollment should be mailed to M. D. Lacy, Morrison Hall, Ithaca, N.Y. 14850, not later than January 20, 1966.

ADA IN '66

The American Dairy Association has announced a program of non-brand advertising, merchandising, research, and public relations that will invest a total of \$8,200,000 during 1966. Non-brand consumer advertising for milk and other dairy foods will use 71 percent of the total budget.

The research division is working on the development of new products, quality and flavor improvement, and a variety of studies of consumer attitudes and advertising effectiveness. Public relations and education have been allocated \$367,000 to finance the production of one new film in 1966, pay for the American Dairy Princess program, and finance the development and distribution of a wide variety of materials for industry and consumer use.

Dairy farmers who support ADA invest two cents for each 100 pounds of milk they market. Part of the funds are used for in-state programs, and the balance for nationwide efforts of the organization.



FINAL 30 DAYS OF EARLY TRADER'S BONUS

SAVE NOW AT YOUR IH DEALER

Step lively now, friend. You've just got until December 31 to come in and hit your IH dealer for a big trading bonus. You'll earn instant interest at 6% from the time you trade until season of use (April 1 on tractors, up to 9 months on other qualified machines). The sooner you trade, the more fancy spending money you'll make. Come in today.



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Photo: Reynolds Wrap

DECORATE FOR THE HOLIDAYS

All through the house, aluminum foil can help with Christmas preparations. The shining wreath over the mantel and the angel standing beside the hearth are easily made from this good kitchen helper, plus a few other inexpensive materials likely to be on hand. Here's how:

Christmas Angel: Cut 2 cardboard triangles 21 inches at the base and 19 inches high. Score from tip to base in 2 places, 7 inches apart at the base. Cover with aluminum foil or colored gift wrap, using rubber cement to attach the foil. Fold on the scores and join the two triangles along their 19 inch edges with tape to form a cone.

For the wings, use 2 pieces of heavy duty aluminum foil approximately 9 x 32 inches. Pleat in 1½ inch pleats. Attach with tape to tip of cone and open out.

The angel's head is a large styrofoam ball inserted over tip of cone. Cut strips of gold gift wrap for hair and make eyes and mouth from blue and red gift wrap. The halo is a cardboard circle covered with aluminum foil.

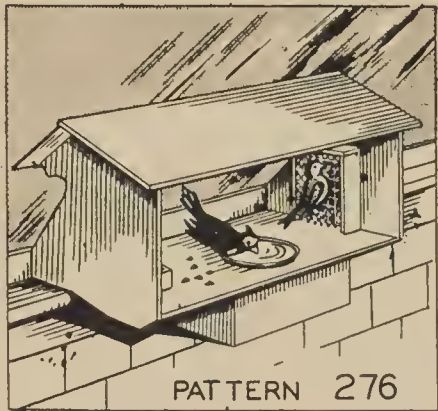
Christmas Wreath: Cut a large ring any desired diameter and approximately 1½ inches wide from cardboard. Pad with tissue or any soft paper. Cover with aluminum foil and decorate with little frills or twists of colored gift wrap.

Silver Candle Reflectors: Pleat

2 inch wide strips of aluminum foil in ½ inch pleats. Join to make round pleated disc. Attach to a toothpick and stick sharp end into candle.

Merry Christmas: Cut squares of regular aluminum foil. Crush to make strips. Form into letters. To attach to any surface, first coat the wrong side of letter thickly with rubber cement. Let it partially dry, then place in position.

HOME WORKSHOP



Summer and winter birds will stay around your home if you give them food, shelter and water. Pattern 276 gives actual-size guides for a window-sill feeding station and directions for a non-freeze water pan. This pattern is 35 cents and is also in the Bird-house and Feeder Packet No. 31 which is \$1.00.

Send orders to AMERICAN AGRICULTURIST, Pattern Dept., Bedford Hills, New York.

MRS. VAN BORTEL'S CHERRY PIE

FILLING

1 pint frozen cherries
1 cup sugar
2 tablespoons cornstarch
Few drops red food coloring
Dash of salt
1/4 teaspoon almond flavoring

CRUST

2 cups all purpose flour
1 teaspoon salt
2/3 cup Crisco
1/3 to 1/2 cup cold water

To make crust: Mix flour and salt together; add Crisco and work it in with blender. Add cold water gradually, 1 tablespoon at a time. Roll out lightly on board or waxed paper until about 1/8" thick.

Note: Pastry will be more flaky if allowed to stand a few hours before adding filling and baking.

To make filling: Bring all ingredients to boil and cook until thickened. Let cool and put in unbaked pie shell. Cover with top crust and bake 30 minutes at 450; reduce heat to 400 and bake 15 minutes longer.

Editor's Note: Mrs. Harry Van Bortel, 164 W. Genesee St., Clyde, New York, won first prize in the statewide Cherry Pie Contest sponsored jointly by American Agriculturist and New York State Grange. The above recipe is printed just as Mrs. Van Bortel gave it to us.

CHRISTMAS SHOPPING?

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\$1. GIFT

1 Year—12 issues of the larger, more colorful, easier-to-read Northeast farm paper that is now "Two-In-One"—combining at the same low price the best features of both the A.A. and the Rural.

As a reader yourself, you know how helpful and informative it is each month—on the farm and in the rural Northeast home.

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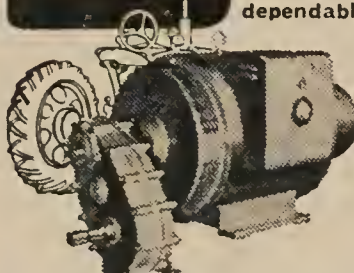
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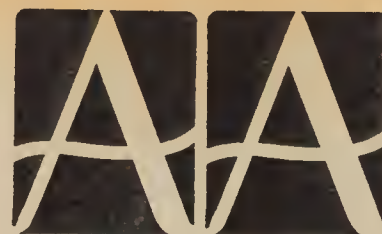


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FARM DOLLAR GUIDE

OUTLOOK FOR LIVESTOCK in '66 continues good. Basis for pre-
diction is that livestock numbers are relatively low and
consumer demand is expected to be high.

USDA YEARBOOK (entitled "Consumers All") costs \$2.75. Send
check to Superintendent of Documents, U. S. Government Print-
ing Office, Washington, D. C. 20402.

CALIFORNIA EGG BUSINESS has moved fast in recent years.
Visits with egg buyer for major concern there reveals that
in 1955 he was buying 4,000 cases of eggs a week from 5,000
active shippers. In 1965, he is buying 45,000 cases a
week... from 104 active shippers. He reports that beginn-
ing June 1, 1966, all broken-out egg products sold in Cali-
fornia must be pasteurized.

INFORMATION about applying aluminum roofing over an old as-
phalt or wood roof on farm buildings is yours for the ask-
ing. Drop a card to Reynolds Metals Co., Building and Sup-
ply Division, 325 West Touhy Avenue, Park Ridge, Illinois,
60068, and ask for new farm building products booklet.

STORING EGGS near fresh-picked apples has resulted in a bit-
ter flavor in the eggs.

LITTLE THINGS affect poultry profits. Professor Charles
Ostrander of Cornell points out that each 1 percent increase
in egg production increases yearly income by 10 cents per
hen. Decreasing feed cost \$3.50 per ton gives a similar
increase. Reducing "cracks" by 5 percent increases returns
20 cents per hen per year.

THERE'S SOME EVIDENCE that more pigs will be farrowed in '66.
Hog producers in ten Corn Belt states indicate intention to
have same number of sows farrow in December-January as a
year ago, and sow slaughter is down so that expected farrow-
ings are up.

THE USE OF technical Malathion with little or no dilution as
airplane or air blast sprays for insect control has genera-
ted much interest. USDA reports that aerial applicators
in some regions are applying other insecticides such as
undiluted parathion, and methyl parathion. This is a highly
dangerous procedure, as well as illegal.

RATS DESTROY GRAIN and carry diseases. Experts say if you
see rat signs but no rats, you may be harboring 100 of them.
If you see rats occasionally at night, you are likely to be
feeding from 100 to 500; if you see several at night and
sometimes in daytime you may have up to 1000; and if you see
several every day your farm may be a home for as many as 5,000.
We have good rat killers; why wait?

ON SEPTEMBER 1, potential U. S. layers totalled 374 million,
down 4 percent from year ago. However, poultrymen may keep
old hens longer. Egg-type chicks in October were up, but
January-September chicks hatched were down 9 percent from
year ago. September broiler hatch was up 12 percent from
a year ago.

Turkeys raised this year are about 4 percent above '65.
U. S. dairy cows are about 3.2 percent below last year.

DAIRYMEN WILL FIND new bulletin by Professor L. C. Cunning-
ham entitled "Commercial Dairy Farming in New York" of in-
terest. It traces past trends, predicts future production
by regions, and offers suggestions to meet changing condi-
tions. Single copies are available free to residents of
New York State from their county agents, or by writing to
the Mailing Room, Stone Hall, Cornell University, Ithaca,
N.Y. 14850.

WITH EXCELLENT HAY (early-cut legumes) a grain mixture with
12 percent protein is O.K. But where corn silage is the
sole roughage, you may need from 20 to 24 percent.

NEW YORK county agricultural agents have handy blank sheets
for keeping a record of sprays applied to fruit, field
crops or vegetables. There are spaces for date of appli-
cation, amounts applied, and a space for comments. A re-
cord will help to spot errors and be proof of proper use if
a question of too much residue should arise.

TURNING ON REFRIGERATION in a bulk milk tank before milking
in an attempt to compensate for a tank too small has its
dangers. The first milk in a pre-cooled tank may freeze
and develop a rancid flavor.

MOST HOUSEHOLD DETERGENTS are not suited for washing eggs
or utensils used for milk and maple syrup. They often con-
tain perfumes or odors which give undesirable flavors to
food.

COLOR TV is being used by the New York-New England Apple
Institute to sell apples. The theme is "Shine Up Your
Life with a McIntosh Apple."

CROPLAND ADJUSTMENT PROGRAM in new farm law is somewhat
similar to Soil Bank. Can sign up with 5 to 10 year con-
tracts. Must have owned land at least 3 years and, for
'66, must place all of at least one surplus crop in pro-
gram. Check with your county ASCS office for details.



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SAVE NOW AT YOUR IH DEALER

Step lively now, friend. You've just got until December 31 to come in and hit your IH dealer for a big trading bonus. You'll earn instant interest at 6% from the time you trade until season of use (April 1 on tractors, up to 9 months on other qualified machines). The sooner you trade, the more fancy spending money you'll make. Come in today.



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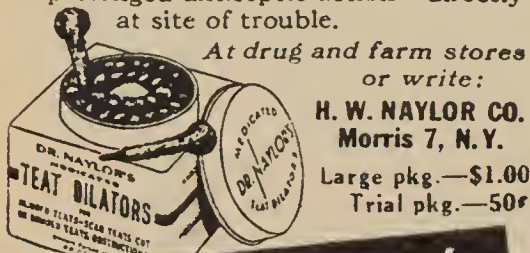
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TRIP TO WISCONSIN

by Jim Bodurtha

NINETEEN Farm Credit Service managers and executives from the Northeast toured Wisconsin last summer for a look-see. They wanted to see how things are done in a state very similar to the region in which they serve farmers. Six of the eight farms observed by the Farm Credit Service men were in Dane County, where out of a total of 4,100 farms some 2,700 are dairy.

Alfred Keller, on a 220-acre farm with 180 acres under cultivation, was seen keeping 94 milkers in rubber-matted comfort stalls, milking them by portable pipeline. Mr. Keller's DHIA average, made principally on corn silage, came to 15,566 pounds of milk and 594 pounds of fat.

Richard Tollefson, on the farm of Dr. J. J. Van de Grift, was parlor-milking 80 cows who were confined in free stalls that had recently been converted from a pen stable. They visited Russell Kahl, who is operating 540 acres of land, with 340 registered Holstein cattle on four farms.

Corn-Haylage

Impressed with Wisconsin farmers' high regard for corn and haylage for feeding efficiency, the northeastern Farm Credit Service men, with some sense of urgency, heard Mr. Kahl predict, "In five years, the hay baler will become as obsolete as the corn binder is today."

The FCS men also visited the farm of Mr. and Mrs. John Wagner. This couple, who became parents of 11 girls before the arrival of two sons, are in the process of converting to free stalls for all their cattle. They have imbedded 60,000-watt heating elements in the concrete floor extending 20 feet from the door of the sheds.

In Dane County, too, the group met William Berkenbine, on whose 455 tillable acres 100 milk cows are loose-housed and parlor-milked. Mr. Berkenbine heats his milking parlor and milk house

with hot water pipes in the floor. His situation was especially interesting to the Northeast Farm Credit Service managers because he had constructed his farm building from lumber removed from a farm he previously owned but necessarily sold due to city and highway development.

Bottling Plant

At Kervyn Link's 345-acre, three-farm dairy establishment in Dane County, the FCS men saw a milk production-marketing operation. Perhaps the chief factor in his financial progress, the FCS men sensed, was the bottling plant and dairy store which Mr. Link constructed in 1962.

In Rock County, to the south on the Illinois border, the group met Melvin Janes, a new director of the Janesville Production Credit Association, who a year ago put up a 50-cow free stall barn at a cost of about \$5,000. Mr. Janes reported the use last winter of only a half carload of sawdust as bedding in the free stalls.

Rock County's Corvan Neuenchwander was also converting to free stalls... 100 of them in a conventional barn and loose-housing shed where he earlier kept 68 cows. He had already completed a new eight-stall milking parlor with automated feeding system. His feeding program was based on forage stored in three glass-lined steel silos, one for corn and two for haylage.

He has also recently installed a liquid manure system. The poured-concrete 12 x 30 x 10-foot pit, field distributor, and the pump cost \$3,600. The pump fills the 1,400-gallon field tank in just 40 seconds. Here, as well as on every farm they visited, there was an insecticide oiler for the dairy cattle, as well as a special self-treatment face-fly insecticide applicator.

The group was impressed by the excellent soils, uniformly good farm buildings, and the general good management evidenced.

The Song of the Lazy Farmer

My fav'rite kind of business men are those who ev'ry now and then can find the time to sneak away for conversation or for play. At times of year when things are slow, it is a lot of fun to go to town and spend an hour or more just sitting 'round whatever store has got the biggest group that day with hot discussion under way. Then, if the talking gets too loud, I join the elevator crowd to argue 'bout the good old days or whether feeding cattle pays; we never settle anything, but we have quite a time, by jing.

However, arguing gets old and after while the talk turns cold; so next comes my most fav'rite stop, a visit to the barber shop. When rush of morning shaves is done and clipping kids has not begun, old Tony may agree to latch the door and have a checker match. It is the only way I've found to shut him up without a sound, he concentrates so silently, he never dis-

agrees with me; so while he studies I can yak without somebody talking back, and that is something which, you see, I cannot do at home, by gee.



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**DAIRY FEEDS
& SERVICES**

Mrs. Harry Van Bortel WINS CONTEST!

by Augusta Chapman,
Home Editor

IT WAS SUNDAY morning, October 24, and Kay Van Bortel's grandchildren were visiting her in Clyde, New York. This was also the morning Kay had to bake a cherry pie to send to Saratoga Springs for the state finals of the American Agriculturist-New York State Grange baking contest.

After breakfast, the children began teasing Grandma to take them to church, and Kay hesitated, wondering just what she was going to do about that pie! Recognizing one of the privileges and thrills of being a grandmother, and that first things should come first, Kay went to church with her family. And later that afternoon, with Mr. Van Bortel helping all he could, she baked the pie that won over 51 others to make her the champion Grange cherry piebaker in New York State!

The Van Bortels have two married daughters (four grandchildren) and a son who is still in high school. They operate a retail milk business in Clyde and have been Grangers about six years.

As first place winner in the contest, Mrs. Van Bortel had her choice of the three grand prizes

and chose the Monarch Hi-Oven Range in woodtone finish, donated by Monarch Range Company. Kay told me her husband had wanted her to remodel their kitchen for several years. "And now," she said, "I think I'll do it all over and get a refrigerator to match my new range."

Mrs. Van Bortel will also receive \$25.00 from American Agriculturist, \$3.00 from State Grange, a Corning Ware Sauce-maker with detachable handle from Corning Glass Works, and a Cheddar Treasure Chest Cheese Assortment from Dairymen's League Coop. Assn. Inc.

Winner No. 2

Second-place winner in the contest was Mrs. Harvey Russell of Poughkeepsie. She will receive the Unico Portable Dishwasher from Agway, Inc., as her grand prize, plus \$20.00 from American Agriculturist, \$3.00 from State Grange, and the prizes from Corning Glass and Dairymen's League (given to each of the ten high winners).

We always call the grand prize winners and see if they can come to State Grange to hear the winners announced, and I tried at half-



Pictured is Mrs. Agnes McHefhey, Chairman of State Grange Service and Hospitality Committee and Co-director of the Cherry Pie Contest, with the four winners present at State Grange. From right to left in the picture are Mrs. McHefhey, Mrs. Harry Van Bortel, Mrs. Harvey Russell, Mrs. William Hill, and Mrs. Elsie Cronk.

hour intervals all evening to get Mrs. Russell, but no one answered the phone. I was so glad to find Mrs. Russell in the Session next morning and to surprise her with the wonderful news that she was our No. 2 winner. By the way, the dishwasher was her first choice of prizes. The Russells have been Grange members for 23 years, and Mr. Russell has an oil business in partnership with their two sons. They also have a married daughter.

Third-Place Winner

Mrs. William Hill of Cambridge was found to be winner No. 3 and received the 52-piece service of Community Silver with Hostess Drawer Chest from Oneida, Ltd., \$18.00 in cash, and the two other prizes.

When I phoned Mrs. Hill, she said, "Oh, No! If you only knew the story behind that pie, you'd laugh!" It seems she baked one pie, covered it, and put it outdoors to cool. Along came the family cat, ending any chance that pie had of winning a contest.

Mrs. Hill said she was tempted to just forget the whole thing, but then realized that she had a responsibility to all the Grangers in Washington County. So she hurriedly baked another pie and

drove as fast as the law allowed to get it to Saratoga Springs in time for the judging. Fortunately they live only 25 miles away!

The Hills are farmers, and Mrs. Hill is also a Unit Sales Leader for Stanley Home Products. This means she hires and trains demonstrators as well as still giving parties herself, sometimes as many as six or seven a week. Mrs. Hill says she is strictly a "weekend baker," since their three children are all away from home.

Contest Directors

Mrs. Agnes McHefhey of Heuvelton, New York, Chairman of the 1965 State Service and Hospitality Committee, and I directed the cherry pie contest. Assisting us were the two other members of the State Committee, Mrs. Lizzie Houck of Dundee and Mrs. Mabel Hyatt of Owego, plus approximately 1,000 Subordinate and Pomona S. & H. chairmen.

Next year, it will be an Applesauce Cake Contest. Very soon every Subordinate Grange in the State will have complete information about the contest, and we hope all Grangers — men and women — will plan to enter. This yearly event is lots of fun, and it's a terrific thrill to be one of the high State winners!



Shown above is Mrs. Harry Van Bortel, champion Grange cherry pie baker, with the Monarch Hi-Oven "Modernique" Range she chose for her grand prize; also Mrs. Harvey Russell, 2nd place winner, and the Unico Portable Dishwasher she will receive.



Third-place winner, Mrs. William Hill, received the 52-piece service of Community Silver with Hostess Drawer Chest from Oneida, Ltd.

15 TOP WINNERS

1. Mrs. Harry Van Bortel, Clyde Grange, Wayne Co.
2. Mrs. Harvey Russell, Poughkeepsie Grange, Dutchess Co.
3. Mrs. William Hill, Shushan Grange, Washington Co.
4. Mrs. Miriam Howe, Franklinville Grange, Cattaraugus Co.
5. Mrs. Elsie Cronk, Castile Grange, Wyoming Co.
6. Mrs. Edgar Leonard, Berkshire Grange, Tioga Co.
7. Mrs. James Dye, Borodino Grange, Onondaga Co.
8. Mrs. Clayton Damcott, Clymer Grange, Chautauqua Co.
9. Mrs. Leon Burdick, Bloomville Grange, Delaware Co.
10. Mrs. Theodore Benedict, Montgomery Grange, Orange Co.
11. Mrs. Pauline Schaltegger, Lindenwald Grange, Columbia Co.
12. Mrs. Goldie Ruzicka, South Lansing Grange, Tompkins Co.
13. Mrs. Josephine Hallenbeck, Franklinton Grange, Schoharie Co.
14. Mrs. Bertha Flansburg, North Star Grange, Herkimer Co.
15. Miss Bessie Moshier, Guyanoga Grange, Yates Co.



Pictured is the first phase of a \$4.5 million building program to provide bio-climatic laboratories and greenhouses for the New York State College of Agriculture at Cornell University. Included in the complex is space for entomology and limnology (left), floriculture and ornamental horticulture (center), and plant pathology (right). In the foreground is Morrison Hall, Animal Husbandry department. One of the laboratories was named in honor of Kenneth Post, former head of the Department of Floriculture and Ornamental Horticulture.

Dairymen's League Annual Meeting — Lester W. Martin, Milford, New York, was re-elected president of the Cooperative. Elected first vice-president and treasurer was Eugene J. Vandembord, Delancey, New York; second vice-president and secretary is James R. Donnan, Galway, New York. Russell E. Dennis, Fairport, New York, was elected assistant treasurer.

On the board of directors the only new member was Harold W. Talbot, West Winfield, New York. Re-elected were: Mr. Vandembord; Donald R. Townsend, Rhinebeck, New York; Harold Ely, Montrose, Pennsylvania; John E. O'Brien, Middletown, New York; William Lawson, Dundee, New York; Floyd S. Corselius, Clarks Summit, Pennsylvania; and Adrian Sharpe, Waterford, Pennsylvania.

Change in Test — Starting with November 1, the Modified Whiteside Test (MWT) takes the place of an annual physical for dairy herds in New York State. The MWT is performed monthly until there are three consecutive negative tests; after that quarterly unless a positive test (2+ or higher) comes up again, in which case monthly again. If the reaction should be 2+ or higher, dairymen will be notified to check herd. The herd will be re-checked within 72 hours. If the reaction is still above the maximum allowed, a veterinarian must be called. If the problem persists beyond this, it will be compulsory for the dairy to be enrolled in a mastitis-control program acceptable to New York State and New York City boards of health.

New York State Grange — Officers named at the annual meeting were:

Russell Curtis, Cazenovia, Master; Robert S. Drake, Woodhull, Overseer; Mrs. Kay Williams, Huntingdon, Lecturer; Robert M. Payne, Coeymans Hollow, Treasurer; Morris J. Halladay, Groton, Secretary. Re-elected to the executive committee for three years was Edmund H. Marvin, Sr., Macedon; other members of the committee newly elected are Burt Morris, Marathon and Keith R. Handy, Fort Plain.

Mushroom Farm — The largest single mushroom farm in the world is in Butler County, Pennsylvania, where in an abandoned mine more than 10,000,000 pounds of mushrooms are produced annually!

Topped the Field — A twenty-year-old, brown-eyed and brown-haired miss from Catawissa, Pennsylvania, Connie Hoffman, became 1966 "Poultry Princess of the Northeast." Miss Hoffman, a home economics junior at Indiana State College, Pennsylvania, was sponsored by Whitmoyer Laboratories, Inc., Myerstown, Pennsylvania.

Horse Course — A student at Cornell University, Benjamin Barringer, is leading a move to bring about the initiation of a course at the College of Agriculture dealing specifically with horses. He cites as the reason the enormous expansion of pleasure horse numbers in recent years. If you're interested in seeing greater emphasis on research, teaching and Extension work concerning horses in the Empire State, write Ben at 42 Baker Tower, Cornell University, Ithaca, N.Y. 14850.



New York's Junior State Herd took top honors at the National Guernsey Show, Waterloo, Iowa. L. to r.: Carol Ann Calhoun, Hoosick Falls; Sharon Fleming, Phelps; Lloyd Riford III, Auburn; David Pengelly, Bergen; H. Joseph Pendergast, Cobleskill.

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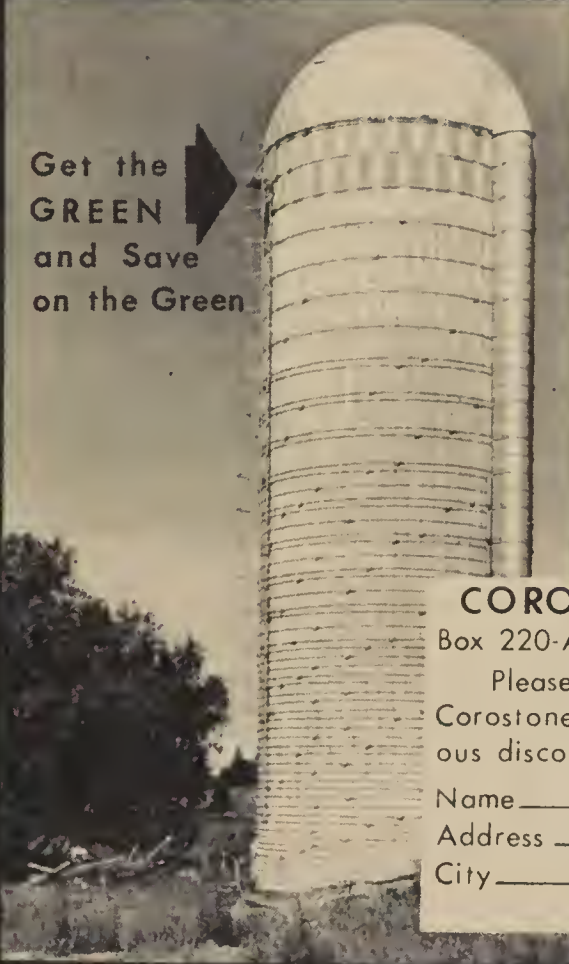
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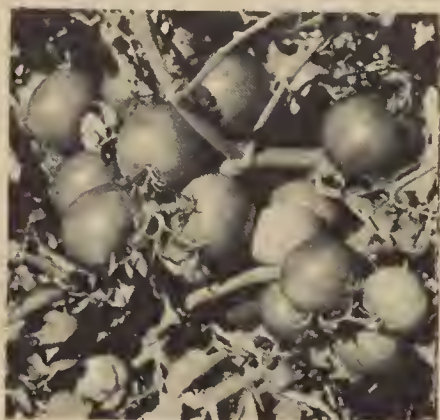
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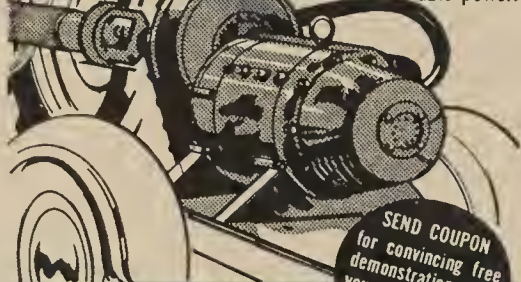
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AGWAY ANNUAL MEETING

GENERAL MANAGER Edmund H. Fallon reported Agway Consolidated gross sales for the last fiscal year (completed June 20, 1965) of \$338 million. In spelling out the strength of the cooperative, he mentioned its \$182 million in assets, 85 plants, and more than 1,000 places of business in its distribution network. He also reported on the major affiliate corporations in which Agway has an interest . . . investments worth nearly \$20 million.

Mr. Fallon called these powerful forces to the attention of people interested in agriculture . . . organized labor, growth of government's influence, urbanization in the Northeast, chain stores that have centralized purchasing power, technological changes, inflation, and the burgeoning transportation complex.

Capital Expense

President Jonathan Davis reported first-year capital expenditures in excess of \$17 million . . . primarily in fertilizer production and blending facilities. A nitrogen plant is being built near Olean, New York, to make Agway "basic" in that plant food. Along with other co-ops, Agway is also moving into basic production of potash and phosphates. Without large size and plenty of capital, no co-op could play in that league . . . for "P & K mines" cost untold millions to buy and operate.

Broken Eggs

Scheduled to begin operation in December of this year is a new egg-breaking installation at New Paltz, New York. It fits into the development of a new way of handling called "liquid eggs" . . . 47,000 pounds of broken-out eggs in a single tanker-truck! This facility can pasteurize eggs . . . something many experts predict will be required of most, if not all, broken-out eggs sold in the future.

Depending on the product, liquid eggs are pasteurized by holding them for 210 seconds at 130 to 140 degrees Fahrenheit. The plant has a capacity of 3,000 cases per week on a one-shift basis.

A technique has been developed, and equipment installed at the New Platz plant for extrusion of a hard-cooked egg roll. Thus, institutional users of large quantities of eggs can buy "a center cut every time" in the form of an egg roll. Distribution of this product to retail outlets may come in the future.

Freight Rates

Profound changes in railroad freight charges are in the works that may add other grains to the existing situation with shipments of corn . . . a point-to-point (ton-mile) basis rather than the in-transit basis in effect for more than half a century. Partly in response to this change, four regional "push-button" feed mills will be built by Agway . . . three in Pennsylvania and one in Vermont. Each plant will have a production

capacity of 50,000 tons of feed per year.

Looking ahead, Fallon named "an effective marketing program" as the greatest opportunity and challenge. He reminded his listeners that Agway's annual marketing volume of \$40 million is small compared to the \$3.3 billion worth of farm products produced in the Northeast each year.

Dates to Remember

December 2 - Dairy Herd Management Short Course, Cornell University, Ithaca, N. Y.

December 2-4 - 11th Annual 4-H Dairy Conference (in conjunction with International Dairy Show) Chicago, Illinois.

December 5-9 - 31st Annual National Junior Horticultural Convention, Netherland Hilton Hotel, Cincinnati, Ohio.

December 6-10 - 13th Annual Breeders' Institute Forum, sponsored by N. Y. Holstein-Friesian Association for dairymen of every breed affiliation:

- 6th - Pine Plains, N. Y.
- 7th - Cobleskill Agr. & Tech. Institute
- 8th - Grange Hall, Calcium, N. Y.
- 9th - Ross Grange Hall, Falconer, N. Y.
- 10th - Monroe Farm & Home Center, Rochester, N. Y.

December 9-10 - Cornell Seed School, Cornell University, Ithaca, N. Y.

December 14-15 - 79th Annual Meeting Peninsula Horticultural Society, Elks Hall, Salisbury, Md.

January 3-5 - Annual Meeting, New Jersey State Horticultural Society Inc., and Vegetable Growers Association of New Jersey, Cherry Hill Inn, near Haddonfield, N. J.

January 5-6 - Massachusetts Fruit Growers Association New England-wide Fruit Growers Meeting and Trade Show, Suffolk Downs, near Boston.

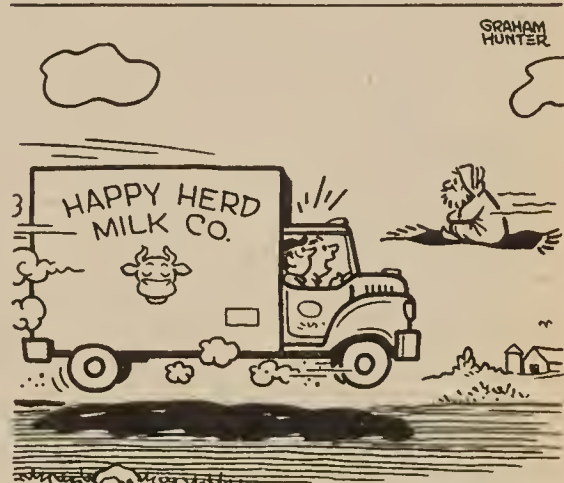
January 5-7 - National Turkey Federation Convention, Conrad Hilton Hotel, Chicago, Ill.

January 10-14 - Pennsylvania Farm Show, Harrisburg, Pa.

January 12 - Annual Meeting New York State Agricultural Society, DeWitt Clinton Hotel, Albany, N. Y.

January 18-20 - National Council of Farmers Cooperative, Washington, D. C.

January 24-28 - 15th Annual Beef Cattlemen's Short Course, Cornell University, Ithaca, N. Y.



"It beats all, th' foreign vehicles one sees on th' road today!"

American Agriculturist, December, 1965



Changeless, yet ever changing from sunrise to sunset, the magnificent colors and awesome majesty of the Grand Canyon defy description. Our sightseeing drive along the Canyon rims is a fitting climax to our Southwest Holiday!

TAKE A WINTER HOLIDAY!

COME JANUARY or February, what could be nicer than to leave snow and ice behind and travel south to the sun with a happy American Agriculturist tour party? We offer you a choice of two wonderful winter vacations and guarantee that you'll have the time of your life, whichever one you decide to take.

On January 16, our Southwest Tour party will be on its way to a three-week vacation that will take us to some of the most fascinating places in the Southwest and California. Following are a few of the thrilling sights included in this tour: Carlsbad Caverns, Old Santa Fe and Albuquerque, Phoenix, Las Vegas, Death Valley, San Diego (with a side trip "South of the Border" to Tijuana), Capistrano, Disneyland, Hollywood, the famous 17-mile drive up the Coast, San Francisco, Yosemite, and the awe-inspiring Grand Canyon.

This is an all-expense tour with everything included in the price of your ticket. You'll have no travel worries of any kind, for our friendly and competent tour escort takes care of everything. Each day will add to the rich experiences shared with other tour members, and you'll return with wonderful memories you'll never forget!

Caribbean Cruise

But maybe a cruise through the blue waters of the Caribbean appeals to you more this winter. If so, we have the perfect vacation for you. On February 22, we will sail from Port Everglades, Florida, aboard the S. S. Queen of Bermuda for two weeks in the land of

bright sunshine, gently rolling seas, and exotic tropical landscapes.

Ports of call for our Caribbean Cruise include St. Thomas, St. Maarten, Trinidad, Martinique, Aruba, Kingston, and Nassau. We'll browse in delightful little shops offering fabulous goods at remarkably low prices, relax on white sand beaches, and explore all the fascinating places each island offers.

The luxurious Queen of Bermuda is itself a floating resort — completely air conditioned and with smart, spacious staterooms. You will enjoy the marvelous food, beautiful lounges, and broad, sunny decks. There'll be plenty of entertainment, good company, and a wonderfully relaxing atmosphere.

Both of these delightful vacations have been carefully and expertly arranged by our tour agents, the Travel Service Bureau of Needham, Massachusetts. Those of you who have traveled with us before know that this means perfection in every single detail. Whichever tour you choose, you will have a glorious time and travel with the greatest ease and pleasure.



Send For Itineraries

We'll be glad to send you a free copy of either or both of the illustrated itineraries, which give full details and cost of the tours. Just fill out the coupon below and send it to us today. Don't put it off . . . space on both tours is limited, and reservations are coming in fast!

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14851

Please send me, without obligation on my part, the following tour itineraries:

Southwest Holiday _____

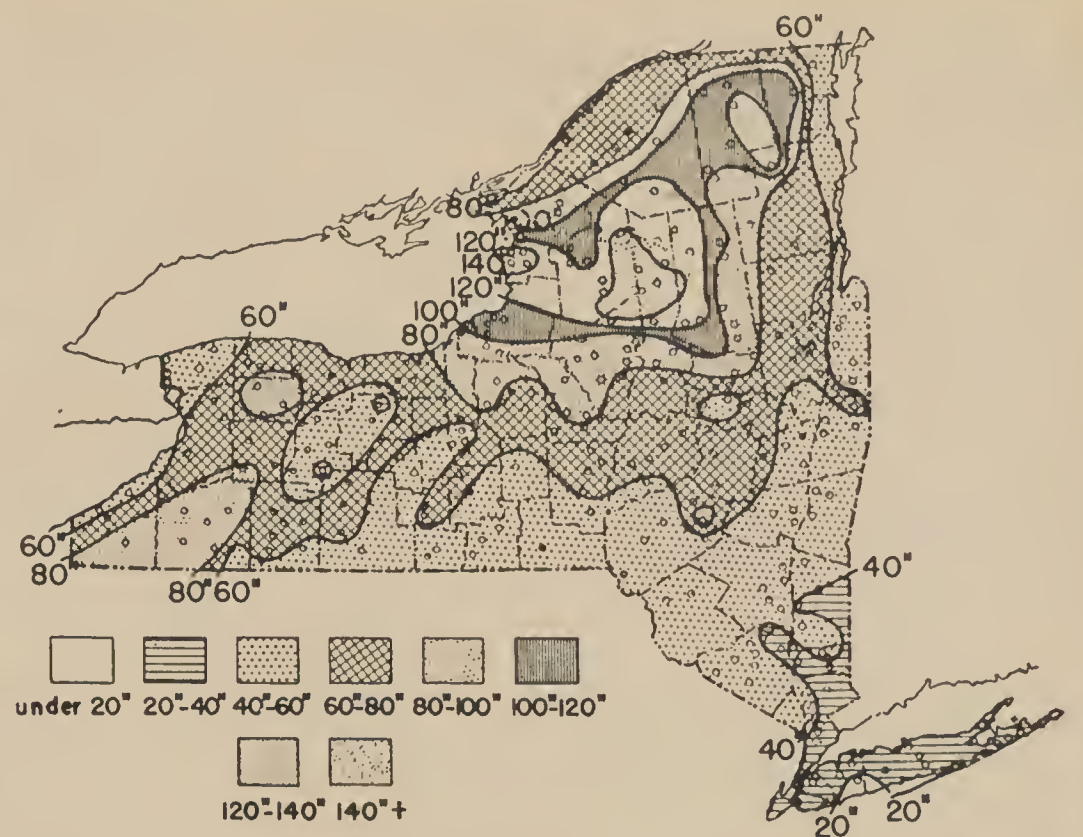
Caribbean Cruise _____

(please print)

Name _____

Address _____

American Agriculturist, December, 1965



What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oneida	WMCR	1600 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.			

Northeast Radio Network

Ithaca, New York

Livestock Mart



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REGISTERED ANGUS CATTLE bred cows and cows with calves, two and three for one combinations. Also bred 1963 heifers and open 1964 heifers. Mohawk Farms, Canajoharie, N. Y. Lynn Potter 518-CA-45262.

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SUNNYBROOK CHICKS are backed by a reputation for quality and service that goes back more than 40 years. Bred from top laying strains that outlive, outlay the best in the business. White Leghorns, Harco Black Sex Links, Rhode Island Reds, Dekalb, other breeds. Hatching year 'round. For meat you can't beat our Vantress-White Rock crosses. Write for Catalog, down-to-earth prices. Sunnybrook Poultry Farms, Box 106, Hudson, N. Y.

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WE ARE SUPPLIERS for Dairy Farm: First class milkers, poultrymen, general farm workers. Ellingers Employment Agency, 80 Warren St., New York, N.Y. Phone GR 3-8168-9.

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CUT HEATING COSTS. Use Marco Furnaces and Boilers. Either Complete Combustion Wood and Coal or Combination Oil-Wood and Coal Units. Literature free. Marco Industries, P. O. Box 6-A, Harrisonburg, Virginia 22801.

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12" to 14" \$10.00 15" to 16" \$11.00

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GUIDE BARS: New, hard-nose, to fit:

Homelite 17" \$17.00, 21" \$19.00

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SPROCKETS: Direct-drive sprocket \$4.00;

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Add 50¢ to total order for shipping

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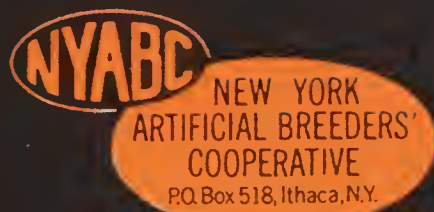
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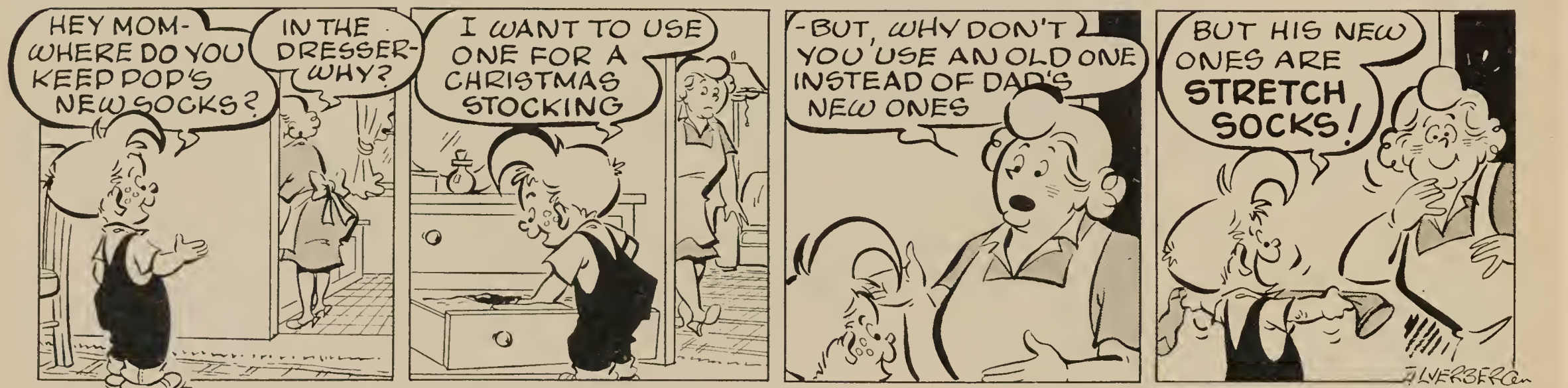
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BEE SMOKE

Floyd E. Moeller, U.S. Department of Agriculture researcher at the University of Wisconsin, has been testing some chemicals used to gentle down bees when handling them. He found that the most damaging agent that beekeepers use is nitrous oxide produced by heating ammonium nitrate fertilizer until it smokes. In experiments, almost a quarter of the bees died within twenty-four hours after being subjected to this gas.

Moeller also checked on commercially bottled carbon dioxide, hydrocyanic gas generated from calcium cyanide, and propionic anhydride mixed with water. None of these three materials seemed to shorten the life of bees after one treatment.

However, some beekeepers have "mean" bees and smoke them every time they handle them. So Moeller exposed colonies to multiple doses of the different chemicals being tested. Nitrous oxide was bad when used once, but was worse with added applications. Fifty percent of the bees were killed after four uses of this gas, and 75 percent of the bees were dead after it had been used five times.

Repeated exposure of bees to materials like carbon dioxide and hydrocyanic acid also shortened their life span. Four exposures to these materials reduced bee life span two weeks; six weeks was the life span of test bees not treated with any chemical.

When repeated handling is necessary, Moeller suggests using propionic anhydride, which acts as a repellent rather than an anesthetic. Generally speaking, any material used as an anesthetic is likely to cause permanent damage to bee colonies.



Officers for 1965-66 of the New York Dairy Herd Improvement Cooperative, left to right: Donald Hanks, Salem, Secretary-treasurer; Eugene Brace, West Winfield, President; Francis Sears, Cortland, vice-president.

New directors of the New York Dairy Herd Improvement Cooperative are, left to right: Ralph Winsor, Harpursville, District 6; Robert Feasley, Eden, District 1; and Bernard Hill, Lowville, District 10.



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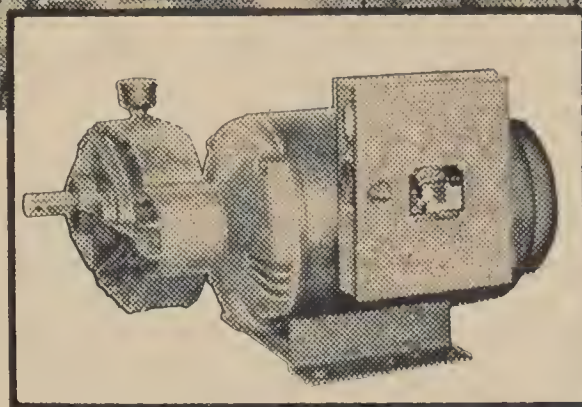
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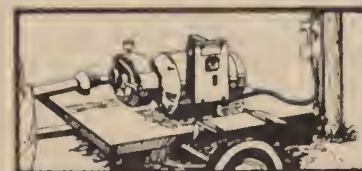
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HOLIDAY ENTERTAINING

by Alberta D. Shackelton

HOLIDAY TIME is "Party Time," when we like to entertain friends in one way or another. There are always the casual callers who drop in to see your Christmas tree and gifts, as well as friends or neighbors invited in for morning coffee or afternoon tea and to sample your choice Holiday cookies and fancy breads.

A Cookie Exchange, Brunch or Luncheon, a gala Buffet Supper or Smorgasbord, the festive meal on Christmas or New Year's, or an Open House are all good ways to extend greetings of the Season.

Here are a few ideas for Holiday entertaining that I use from time to time. Recipes are given for the starred items on the menus.

HOLIDAY BRUNCH (guests are asked to come at 10:30 or 11:00 a.m.).

Cranberry Juice Cocktail
Creamed Shrimp and Mushrooms* in
Cream Puff or Frozen Puff Shells
Fruit Salad Plate with Cream Dressing
Rich Coffee Cake Coffee

I find that buffet service from the dining room table with card tables set up in the living room is an easy way to serve this Brunch, but it may also be served right at the dining table.

Fill a clear glass pitcher with the cranberry juice and set it on a tray decorated with holly; arrange punch cups around it. Have the creamed shrimp in a chafing dish or old-fashioned tureen, with the cut-open puff shells on a fancy plate beside it. Arrange the fruit salad and coffee cake on pretty plates or trays, and you will have an attractive table.

The frosted rich coffee cake (your own favorite recipe or the one given in the December 1964 issue of American Agriculturist) serves as the bread, with extra servings and plenty of coffee counting as dessert.

CREAMED SHRIMP AND MUSHROOMS

1/3 cup butter
1/2 cup flour
4 cups milk
1 cup light cream
2 cans frozen cream of shrimp soup (thawed but undiluted)
Salt and pepper
4 cups cooked shrimp
2 cups sliced sauteed mushrooms
1/2 cup toasted almond slivers

Melt butter, stir in flour, and gradually add the milk. Cook over medium heat, with constant stirring, until thickened. Stir in cream and thawed soup, and salt and pepper to taste (some celery salt may also be used, if desired). Add shrimp and mushrooms, place in serving dish, and sprinkle with toasted almonds.

Serve in cream puff or popover shells, thawed and heated frozen puff shells, or your own pastry shells. Serves about 12.

Note: Chicken, turkey, ham, or a combination may be used in place of the shrimp.

CHRISTMAS EVE BUFFET. Some people like to have family

gatherings Christmas Eve, and it is also an ideal time to entertain friends before going to midnight Christmas Eve services. The following menu is especially good for such an affair, as so much of the preparation can be done ahead of time.

Grapefruit Juice with Raspberry Sherbet
Baked Ham and Roasted Turkey
Scalloped Oysters*
Maple Sirup Glazed Sweet Potatoes
Molded Cranberry Salad*
Christmas Pies*
(Coconut-Cherry Chiffon —
Minted Black Bottom)

SCALLOPED OYSTERS

3 cups crumbled saltines
1/2 to 2/3 cup melted butter
1 1/2 pints oysters (fresh or thawed frozen ones)
1 cup finely diced celery, if desired
Oyster liquor plus enough cream or rich milk to make about 1 1/2 cups
Salt and pepper

Mix crumbs and butter and place 1/3 of them in bottom of a shallow greased baking-serving dish. Distribute 1/2 of the oysters (and celery if used) over the crumbs and sprinkle with salt and pepper. Cover with second third of crumbs and rest of oysters and celery and sprinkle with salt and pepper. Pour liquid over all just to moisten and then cover with remaining third of crackers. Bake in moderate oven (350) about 30 minutes. Serves 6 to 8.

MOLDED CRANBERRY SALAD

1 package cherry flavored gelatine
3/4 cup hot water
3/4 cup ginger ale or carbonated grapefruit beverage
1 14-oz. jar Cranberry-Orange Relish
1 cup halved Tokay or green grapes
1 cup thinly sliced celery
1/2 cup coarsely cut pecans or blanched slivered almonds

Dissolve gelatine in hot water and add rest of liquid slowly; mix well. Chill until partially set. Fold in the relish, grapes, celery and nuts. Pour into a star shaped mold which has been lightly greased with salad oil (this makes removal of molded salad easier). Chill until firm (overnight is desirable).

Unmold at serving time on crisp greens and serve with salad dressing or mayonnaise combined with whipped cream or whipped dessert topping. Serves about 10.

MINTED BLACK BOTTOM PIE

1 baked 9-inch pie shell
1/2 cup sugar
1 1/4 tablespoons cornstarch
4 eggs, separated
2 cups scalded milk
1 cup (6-oz. package) semi-sweet chocolate morsels
1/2 teaspoon vanilla
1 envelope unflavored gelatine
1/4 cup cold water
4 egg whites
1/4 teaspoon cream tartar
1/2 cup sugar
Mint flavoring and green coloring

Combine sugar, cornstarch and egg yolks; mix well and add grad-



Photo: American Dairy Assn.

Part of the fun and enjoyment of Christmas is entertaining your friends at informal parties. Egg nog, Christmas cookies, and sliced fruit cake are traditional to serve at a Holiday Open House.

ually the scalded milk. Cook over medium heat, with constant stirring, until mixture is slightly thickened and coats spoon. Add to 1 cup of this mixture the chocolate morsels and vanilla and beat until blended. Pour into baked pie shell.

Combine gelatine and cold water, stir until softened, and stir into remaining hot cooked mixture; stir until dissolved. Combine egg whites and cream tartar, beat until stiff, add sugar gradually and beat until stiff and glossy. Fold into gelatine mixture, add mint flavoring to taste, green coloring bit by bit, and pour over chocolate mixture on the pie shell. Chill until set and garnish with whipped cream or dessert topping.

Note: For Coconut-Cherry Chiffon Pie, make your favorite plain chiffon pie, flavor with almond, and fold in 3/4 cup moist coconut and 1/2 cup candied cherries cut crosswise before pouring mixture into baked pie shell. Chill, garnish with coconut and sliced cherries.

HOLIDAY OPEN HOUSE. This is an excellent way to greet a large number of your friends easily, as you can use many cookies, fruit cake, confections, and even certain holiday breads which you prepared ahead of the Christmas Season.

Egg Nog* or Hot Yuletide Wassail*
Assorted Christmas Cookies
Sliced Fruit Cake
Finger Sandwiches of Cranberry Bread
Tiny Mince Meat Tarts
Cheese Ball rolled in chopped Parsley, surrounded with assorted Crackers
Candied Grapefruit Peel Stuffed Dates
Salted Nuts

EGG NOG

6 egg whites
3/4 cup sugar
6 egg yolks
1 pint cream (heavy for a rich Nog; light for one less rich)
1 quart milk
Flavoring as desired

Beat egg whites until stiff but not dry. Gradually add sugar and continue to beat. Beat egg yolks until thick and lemon colored and then fold in the whites. Gradually add cream, milk, and flavoring and stir until well blended.

Place in a well chilled bowl. If desired, top with a few dollops of

whipped cream sprinkled with a dash of cinnamon or nutmeg. In any case, have handy a shaker of nutmeg, so dash may be added to each serving of nog. Serves about 20.

HOT YULETIDE WASSAIL

3 cups cider
1 1/2 cups pineapple juice
2 1/2 cups cranberry juice
1 1/2 cups orange juice
2 1/2 cups thin sugar sirup
3 sticks cinnamon
1 1/2 tablespoons whole cloves
3 tablespoons candied ginger

Combine juices in a small kettle. Tie spices in a little cheesecloth bag and add to combined juice. Simmer until spiced to taste. Remove bag of spices. Serve hot. Serves about 24. A large quantity may be made for the Holiday Season, kept chilled, and reheated as needed.



THE WATCHFUL ONES

By Elsa Pakkala

The shepherds were hard working,
poor,

Just keepers of the fold.
But it was to these watchful ones
The story first was told.

The glory of the Lord shone 'round;
An angel came to say:
"Good tidings of great joy I bring
The Christ is born today!"

The shepherds hastened to His side,
They did not long delay.
God manifest in mortal flesh
There in the manger lay.

The wise men also came to see
This one of virgin birth.
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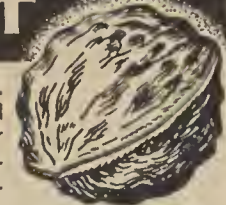
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MINCEMEAT CHRISTMAS STARS

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¼ cup sugar 1 teaspoon salt
1 cup (2 sticks)
Fleischmann's Margarine
½ cup warm water (105°-115° F.)
2 packages Fleischmann's
Active Dry Yeast
1 egg

melted Fleischmann's Margarine
1½ cups prepared mincemeat
Candied red and green halved cherries

Scald milk; let cool to lukewarm. In large mixing bowl, combine flour, sugar and salt. Cut in Fleischmann's Margarine with pastry blender or two knives until mixture looks like coarse meal. Measure warm water into small bowl. Sprinkle in Fleischmann's Yeast; stir until dissolved. Add dissolved yeast, lukewarm milk and egg to flour mixture. Beat until thoroughly blended. Cover tightly. Refrigerate overnight.

Divide the dough into three equal pieces. On lightly floured board roll one piece out into a 16-inch square; brush lightly with melted Fleischmann's Margarine. Cut into sixteen (4-inch) squares. Place on greased baking sheets. Cut each square diagonally from each corner to within ½ to ¾ inch of the center. In each center place a rounded teaspoon of prepared mincemeat.

There are now 2 points to each corner of the square. In rotation, bring the same point of each corner to the center of the square; overlap and seal points at the center. Place half a candied cherry in the center of each star. Cover. Let rise in warm place, free from draft, until doubled in bulk, about 45 minutes.

Repeat with rest of dough. Bake in moderate oven (350° F.) about 12 minutes. Cool on wire rack. Top with confectioners' sugar frosting. Makes 48 Mincemeat Christmas Stars.

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CHRISTMAS TREES

by Nenetzin R. White

SHOULD YOU start a plantation and grow your own Christmas trees? Well, I think by now you know that the bubble of easy money in Christmas trees has burst. It takes a lot of knowledge and much, much work to grow marketable first-grade trees. If you aren't going to do the work yourself, plan to spend a fair amount of money and a lot of time finding competent labor and a market. Not everyone has the time and money to get into this very competitive business.

The other side of the story, however, is bright and rewarding. If you have an open field or an opportunity to purchase some land in the country, by all means plant some trees. It's fun to plant evergreens (suitable to your soil) so that you can at least supply yourself and friends with some Holiday trees, and then let the remaining ones grow into timber. This is, of course, a wonderful conservation

practice — think how it would help our watershed! It is fun too, for a woodlot usually needs thinning and will supply fuel for fireplaces and picnics.

Privacy And Fun

A few years after Phil and I were married, we bought some sidehill property near our home. We reforested this, one field at a time over the years, and now we have one beautiful woodlot. We have cut a couple of roads through the area, thinned the trees, and it is just great. It has given us loads of firewood.

We have not built a cabin on this because it is rather close to our home, but some of the neighborhood children have a couple of delightful structures — a cabin and a teepee! These plants are not timber yet, but I have a feeling they may never be cut, at least not very many of them. If any of you would like to see our young

woods, Phil or I would be delighted to show you around. Perhaps you, too, want privacy and lots of fun at a low cost.

Cut Your Own Tree

If your own plantation is still a dream, the next best thing this Christmas is to cut a nice, fresh tree from someone else's woodlot. We feel that we invented this idea, for it was many years ago that we opened our first Christmas tree area the two weekends before Christmas. We now have some of the first children who were out bringing their children to cut their own trees.

The price of trees is normally lower when you cut your own, but more important is the freshness of the trees and the fun. Many growers now let you "cut your own" and usually allow you (at least we do) to cut extra greens for decorations. For traditional and new ideas in Holiday decorations, consult your Home Demonstration Agents or Garden Clubs.

Now Is The Time To Mulch

In our Northeastern area, December is usually the month to mulch your plantings. The reason for mulching is to keep the soil from alternately freezing and thawing. This can break off roots and heave plants out of the soil. Once the ground is frozen hard, put on your mulch to keep the frost in for the rest of the winter. Last year in the Ithaca, New York, area, we started mulching on December 12.

I feel that the best mulch to date

is shredded hardwood bark. It has a nice dark brown color, doesn't rob nitrogen from the soil, and won't blow away. Any type of mulch, however, that will allow air and water through is good. If you use peat moss or straw, put a few branches of evergreens over them to prevent wind erosion.

Leave this mulch on just as long as you can, for March is normally a pretty "heavy" month. Remove the top layer first, then the rest a bit later. You can even leave some right in place to work into the soil and act as a summer mulch.

DO YOU HAVE . . .

Pillsbury Bake-Off Cookbooks No. 1 and No. 10? Mrs. Wallace Loman, 933 Derby-Milford Rd., Orange, Conn., has all the others and would like these to complete her collection.

A recipe for old fashioned white bread that you let raise overnight and bake in the morning? If so, would you please send it to Mrs. Emmy Lillis, R. D. 1, Oxford, Conn.

A recipe for "Higdom"? According to Ms. Viola I. Okeson, 9 Euclid Ave., Kingston, N. J., this is an old fashioned pickle made from green tomatoes, onions, and pickling spices — but containing no sugar.

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leaves the cold Northeast in mid-January for about three weeks of the historic, scenic Southwest, California, and even a stop at Tijuana, Mexico. See Carlsbad Caverns, the Grand Canyon, Phoenix, Las Vegas, Death Valley, Disneyland, San Diego, San Francisco — to name a few. Write for the facts today.

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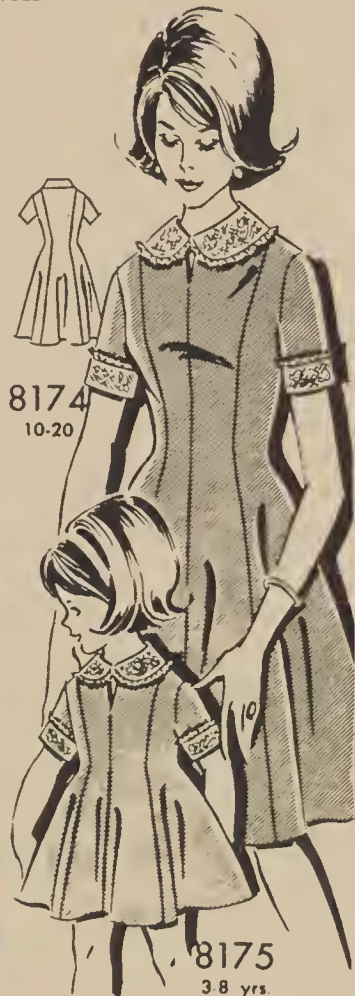
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8174 & 8175. Princess look-alike frocks. 8174 is in sizes 10 to 20. Size 12, 32 bust, 4 $\frac{5}{8}$ yards of 45-inch; $\frac{3}{4}$ yard lace. 8175 is in sizes 3 to 8 years. Size 4, 1 $\frac{3}{4}$ yards of 45-inch; $\frac{5}{8}$ yard lace. Two patterns, 35 cents each.



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I. S. Rombauer & M. R. Becker . . . \$5.95
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Chapman & Wray \$3.75
- NO DRUMS
E. R. Eastman \$3.00
- Feeds and Feeding (22nd Ed.)
F. B. Morrison \$9.50

Handbook of Ag. Occupations

N. K. Hoover \$4.50
Just published, this book by a Penn State expert on agricultural education and agribusiness fills the serious void in farm youth guidance. Truly the means to convince youth there is much opportunity in agriculture. This book is a "must" for all 4-H'ers, FFA'ers—and farm parents.

- Farm Tractor Maintenance
Brown & Morrison \$4.25
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IS THERE LIFE ON OTHER WORLDS?

Scientists tell us that on some of the million of planets that revolve around their suns there are undoubtedly some kind of beings. Because gravity, atmospheric pressure, and many other conditions are different on other planets than they are here, such beings are different than we are.

It is interesting and fascinating to wonder what those people of other worlds are like. Because many planets in other universes are millions of years older than our world, it is very possible that the people on them are much farther advanced in real civilization. In particular, it is possible that they have learned how to live together in peace.

How often all of us have thought what a wonderful world this would be if there were no wars. Think of the millions of our very best young men who would be saved from early death, or from a lifetime of misery caused by wounds or exposure; think of what we could do in making a better world if we could have the wealth destroyed by war. In short, think what it would mean in the prevention of heartaches and sorrow if there were no wars.

Let's carry this thought a step farther. If we could get along without meanness and quarreling among individuals, if we could eliminate man's inhumanity to man, we would almost have heaven on this earth.

The elimination of war between nations and quarreling among men are what is meant by the quotation: "Let there be peace on earth and good will toward men."

Human nature being what it is, it is too much to expect that we can stop all quarreling among ourselves and between nations in the next year... or hundred years, but is it too much to hope for and expect that we can at least make a beginning toward those shining goals of peace and goodwill?

The place to begin is with ourselves. The time to begin is right now at this Christmas and New Year season.

And the way to begin is to be kinder and more considerate in your business, with your friends... and especially with those you love.

Can you look back on the past year and honestly say that you are at least a little better person than you were a year ago?

tility and production, the cost of production rapidly increased. Still the consumer insisted on having cheap food.

Most consumers can afford to pay more for food. They constantly pay more for other commodities and luxuries without much complaint, but let the price of milk go up one penny a quart and hear them howl... aided and abetted by the politicians.

Another price problem that operates against the farmer is the spread between what the farmer gets and the consumer pays. Today the consumer wants his food in infinite variety and done up in all sorts of fancy packages. Then the farmer is blamed for the increased costs of all this service.

However, I believe that the American consumer really wants to be fair. He simply has no idea of the true situation, and therefore labors under a colossal misunderstanding about the whole food price situation. No wonder so many city people think the farmer is getting rich.

It seems to me that the number one job of farmers' organizations and cooperatives is constantly to give consumers facts and information about the farmer's costs of production. Farmers need a louder voice in the market place.

I believe that when people understand the real situation, they will be willing to pay what food is worth.

Before Yesterday, because the letters prove that the book has helped hundreds of readers to forget for a while the problems and sorrows of these difficult times.

"Journey to Day Before Yesterday" is beautifully bound and illustrated with old-time pictures, and is especially appropriate for a friend or relative as a Christmas present. He or she will never forget your kindness.

Copies will be mailed postpaid for \$5.95 each. (New York residents add 12 cents tax). Send check or money order to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York.

TOO MUCH TINKERING

"I wish to commend you upon your recent editorial regarding the mounting tax burden we are bearing.

"It is always a discouraging thing to try to help people to help themselves. However, I can think of no more valuable service you can render your readers than to keep "harping" upon this theme. Government is taking far too great a toll of our time and money, and assuming too much control of our lives.

"It was a pretty good world before people began to tinker with it." — W. T. C., Penn.

PUT YOURSELF IN A HOLE

The late Ed Babcock, a successful farm leader who wrote "Kernels, Screenings and Chaff" for American Agriculturist for many years, used to say that he tried often to get himself into a difficult place where he had to "root hog or die," in order to get out.

One way to save is to apply Ed's idea by buying a good farm or home with a mortgage, or by purchasing some life insurance — so that you have placed yourself in a hole where you just have to save in order to pay the principal and interest on the mortgage. The trick is not to get into a hole where there is no possibility of climbing out, and not to run in debt for something you don't really need.

When Belle and I were first married, we bought some life insurance. For years it was a terrific struggle to pay the premiums, but by going without other things we always managed somehow to pay them.

Since writing the above, Belle has had a very bad fall which broke her arm. This, coupled with the shock of the fall has caused a long painful illness, with the high costs of nurses, doctors, and medicines.

There is just one bright spot in all this trouble. With a lifetime of going without and through careful saving there has been money enough to meet our expenses.

I wish I had some way to impress this lesson on every young couple in America. What a lot of worry, and even despair, it would save.

UNFAIR TO FARMERS

Food is and always has been the cheapest commodity the consumer buys. Except for short periods of time, farmers have never been paid what food is worth. Statistics show that salaries... and especially wages... have gone up many times faster than farm prices, and the whole farm price situation is completely unfair to farmers.

For years farmers were able to exist on low prices because they grew most of their own supplies. When they did go into the market, they were able to live on low prices because America as a whole had the most fertile soil in the world and the consumer — not the farmer — got the benefit of the rich soil in cheap food.

But finally when farmers had to use commercial fertilizers and costly equipment to maintain fer-

SECRET OF HAPPINESS

In my counseling work with students at Ithaca College I always ask them why they are trying to get an education. Almost always their answer is, to make a better living.

That is one answer, but it is also very important to get an education to be able better to help others, to be a better son or daughter, a better father or mother, a better citizen, and a better friend. The more we can help others, the happier we will be ourselves. The secret of true happiness is giving.

Let me give a personal example of what I mean. Nothing I have ever done has given me more happiness than the many enthusiastic letters I am constantly getting about my book Journey to Day

EASTMAN'S CHESTNUT

My friend, Wendell T. Card, Sylvania, Pennsylvania, sends me the following story with this comment:

"I first heard this story told by a Methodist preacher addressing a group of Presbyterians of which I was one. With suitable variations it's a good story for almost any occasion, and I have never failed to see it bring a good laugh:

"An old Quaker was milking when the cow suddenly kicked him over into the drop. The old man got up and after a visible struggle with himself addressed the cow as follows: "Thee knows I am a Friend (Quaker) therefore I cannot curse thee; for the same reason I cannot beat thee. But one thing I advise thee to remember well... I could sell thee to a Presbyterian!"



ED EASTMAN'S
PAGE





SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Donald Popp, Leicester	\$236.99
(claim settlement)	
Mrs. George Hall, Bainbridge	40.00
(claim settlement)	
Miss Annie Dawson, Shelter Island Hts	1.95
(refund on scissors)	
Mrs. Charles Lasch, Hamlin	150.00
(refund on course)	
Miss Beatrice Aber, Wellsburg	20.00
(payment for hay)	

NEW HAMPSHIRE

Mrs. David J. Cummings, Pittsfield	13.76
(refund on dress)	

MASSACHUSETTS

Mr. Homer Farrington, Bradford	1.00
(refund on order)	

OHIO

Mr. Wm. A. Baker, Rossford	102.50
(vacation pay rec'd.)	

that there is more than one machine for sale.

A person answers the ad, a salesman calls, and invariably he pulls a "switch" and tries to sell a less well-known but much more expensive machine. Too often he succeeds. Fortunately, our reader would not be "switched" but insisted on the \$20.00 machine as advertised. The salesman took her order, but she never received the sewing machine.

ADDRESSES WANTED

Howard W. Howe, formerly of Pittsburgh and Columbia, New Hampshire.

* * *

Harold Ager, whose father's name is Fay and whose mother is deceased.

* * *

Mr. and Mrs. Loel Lusk, formerly of Alfred or Alfred Station, New York.

* * *

Arthur E. Anthony, Sr., formerly of Buffalo, New York, whose last known address was Willow Grove, Pennsylvania.

* * *

Janet Allen, daughter of Ralph Allen, formerly of Bakersfield, Vermont.

* * *

Mrs. Bud Showers, formerly Thelma Elizabeth Estes, whose last known address was Marysville, California.

* * *

Mrs. Carolina Kriegsus, whose last known address was St. Louis, 18, Missouri.

* * *

Stella Rolland, who married William Haines, and whose last known address was Massena, New York.

* * *

Clara McBride, born in England. She married Emmanuel Troman and settled in Pennsylvania.

* * *

Descendants of Oliver Todd, whose family took up government land in Alberta, Canada, around 1907.

* * *

Charles Oscar Lester, formerly worked in Point Pleasant, New Jersey, and whose last address was Newburgh, New York.

Inquiries and letters to the Service Bureau should be addressed to Service Bureau, American Agriculturist and the Rural New Yorker, Box 370, Ithaca, New York.

BAIT ADVERTISING

"A short time ago our local newspaper ran an ad for a sewing machine for \$20 — last year's model, never used, all attachments, original guarantee. Just for fun I called the phone number given, and an answering service took the call. They told me I would be contacted, as they had so many calls. From then on I was suspicious.

"Before long a man called and made an appointment to see me. He came and showed me a model which sold for \$20, but not the one advertised. After he demonstrated the machine, I tried it and it ran very well. I asked him if this would be the machine I was going to receive or would they give me junk. I told him I didn't want the machine for myself, but for my teenage daughters who are in 4-H work and do sewing.

"Then he told me he had another machine he wanted to sell me for \$335.95. When I told him I wasn't interested, he kept putting the price down until he offered it to me for \$95.00. Still I wouldn't budge, and he told me he had to make sales for this particular machine because he had won a trip to Florida for seven years and wanted to win again this year.

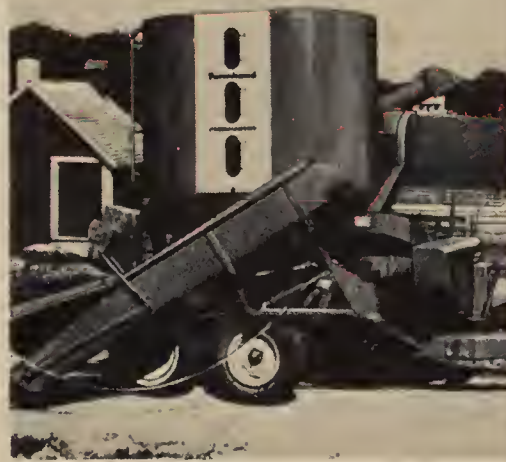
"When he saw that he couldn't convince me, he filled out a paper for \$20.00. I signed it and he asked how I wanted to pay for the machine. I told him I would pay cash when it arrived, which he said would be in two weeks time. To this day I have not seen or heard from him. I didn't lose anything, as I was smart enough not to give him any money. My daughters, however, bought cloth in anticipation of their sewing project. I wonder how many people bought the expensive machine and how many got caught by this smart and shrewd speech."

There seem to be a number of outfits that advertise a well-known name brand sewing machine at a very low price. Their advertising is worded in such a way as to imply that it is an individual who has just one machine for sale. These ads often run for weeks at a time, which is a good indication

American Agriculturist, December, 1965



With Our
ADVERTISERS



A new portable grinder-mixer, the F-85 Feedmaster, is being produced by the Farmhand Division of Daffin Corporation, Hopkins, Minnesota. Standard features include 926 sq. in. of screen area in the 24-inch hammermill, 12-inch feed roll for better handling of hay and ear corn, 24-inch mixing auger, full gear box drive, "walking beam" tandem running gear, 8-foot elbow-type discharge auger, power-saving auger from mill to mixer.

International Harvester Company's new farm tractors and equipment include a 60-pto hp, a 110-pto hp turbo, and a 110-drawbar hp four-wheel-drive model, plus a variety of tillage equipment and new hay machines. The new Farmall 656 is a 60-hp pto (manufacturer's measured maximum rating) tractor, which offers many comfort features, modern hydraulics, steering and styling found in the big tractors manufactured by the firm. In the 110-hp pto class, IH is offering two Model 1206 turbo tractors in the 7-plow class for high-speed farming. In a 4-wheel-drive model, the Company has introduced its International 4100, a 110-drawbar hp tractor designed for high-speed, 8-plow field work.



The McCulloch Corporation, 6101 W. Century Boulevard, Los Angeles, California, has introduced a large number of new chain saws for 1966. One model, the MAC-15, is the lowest priced McCulloch saw on the market. (\$124.95) The MAC-1-10 and MAC-2-10 weigh in the 10-pound class; both have instant-starting primer and use a 40 to 1 gas to oil mixture. Other saws go right on up to the largest and most powerful for the really big timber.

Shown above is the MAC-15.



The Oliver Corporation of Chicago, Illinois, has introduced a new automatic reset plow for stony or stump-strewn fields. When the plow bottom encounters an obstruction which it can't dislodge, it swings back and up just enough to permit the bottom to slide up and over the obstruction. In so doing, it cushion-compresses the fluid and gas in the hydraulic system, forcing the beam back into normal plowing position. It is available in a semi-mounted model, No. 575, with 4 to 8 bottoms, or pull-type, No. 475, with 5 to 8 bottoms.

A comprehensive feedlot layout plan book for mechanized feeding of beef and dairy herds and other livestock with the revolutionary tapered-bed conveyor bunk feeder is available free of charge from Dept. AA, Brillion Iron Works, Inc., Brillion, Wisconsin 54110. The booklet compares the economics and operating efficiencies of manual and recent mechanical bunk feeder methods. It contains detailed information on the selection of the feedlot site, instructions for the construction of the bunk, and typical layout suggestions for a complete feeding system.



A new "build-it-yourself" forage box is being offered by New Holland. Buyers have the option of obtaining the forage box three ways: assembled; as a metal parts kit with complete plans and pre-fabricated lumber; or as a metal parts kit only with plans for assembling with locally-purchased lumber.

Designed also for handling bales of hay and ear corn, the New Holland forage box has a quick-change device for switching from front to rear unloading. No tools are needed.



Season's Greetings

Now in its 80th year, the North American continues to serve farm families throughout the Northeast with personal protection. In the coming year we pledge again to you our prompt-personal service during your time of need.

We at the North American extend to each of you warmest wishes this Christmas Season. May the New Year bless you with happiness, good health and the opportunity to prosper.

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